No. 16368

United States Court of Appeals
For the Ninth Circuit

RAYONIER INCORPORATED, a corporation, *Appellant,*

vs.

UNITED STATES OF AMERICA, *Appellee.*

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF WASHINGTON NORTHERN DIVISION

OPENING BRIEF OF APPELLANT RAYONIER INCORPORATED

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JURISDICTION

The district court had jurisdiction over the subject matter of and the parties to this action under 28 U.S.C. §§ 1331, 1346(b) and 2671-80, commonly known as the Federal Tort Claims Act (R. 3, 171; Conc. II, R. 236; Find. II, R. 243). This court has jurisdiction to review the district court's judgment (R. 215-17) under 28 U.S.C. §§ 1291 and 1294(1).

STATEMENT OF THE CASE

Foreword

Rayonier seeks recovery from the United States of damages stipulated to be $895,000 for loss of timber and other property, caused by Forest Service negligence in failing to prevent, control and extinguish a forest fire in August and September, 1951, on the Olympic Peninsula, Washington (R. 168-69, 173).

This case has already been before this Court on a challenge to the sufficiency of the complaint. *Rayonier Incorporated v. United States,* 225 F.2d 642 (9th Cir. 1955). The United States Supreme Court granted certiorari and *vacated in their entirety* the judgments of both this court and the district court. *Rayonier Incorporated v. United States,* 352 U.S. 315 (1957).

Appendixes "D" and "E" are maps derived from Exs. 26 (Ex. 8 thereto), 61, 62, 80, 108, 111, 112, and 134, which are intended to assist in orienting the court to the Soleduck Valley of Washington's Olympic Peninsula where this fire occurred.

The following statement of facts is adopted partially from the government's hypothetical question (Ex. 177). In its hypothetical question the government adopted, with minor modifications, the facts set forth in Rayonier's multigraphed hypothetical question (Tr. 3358-73, 3575-76, 3727, 3742-43). Therefore, to the extent that the facts set forth in Ex. 177 are identical with those set forth in Rayonier's hypothetical question, they are facts agreed to on the record. References herein to the hypothetical question (Ex. 177) are designated "HQ" and the page of Ex. 177 is stated, e.g., "HQ 2."

The Time, Place and Conditions

The Soleduck River flows from east to west. U. S. Highway No. 101 ("Olympic Highway") runs east and west through the Soleduck Valley. There is a point on the highway in Section 30, T-30-N, R-10-WWM ("Section 30") at which there are a few small frame build-

ings known as Heckelville.[1] At Heckelville the Soleduck winds within 300 feet south of the Olympic Highway (HQ 1).

Across the river from Heckelville were the tracks of the logging railroad Port Angeles & Western Railroad Co. (PAW) which ran the 70 miles between Port Angeles and Forks. Forks is 27 miles west and south of Heckelville (HQ 5).

The area south of Heckelville, on which the tracks were located, is about 1000 feet above sea level and fairly flat. Part of this is called the 60-acre area. Further south forested hills and mountains rise to varying elevations up to 3000 feet or more, with numerous ridges, valleys, draws and canyons running in various directions (Exs. 111, 112, 128, 129, 132, 132-A; HQ 2, 6).

Camp Creek flows northwesterly into the Soleduck just west of the 60-acre area. The PAW crossed Camp Creek on a bridge in the center of Section 30 near the westerly end of the flat 60-acre area.[2] The PAW maintained a railroad water tower called "Flight" a little less than a mile west of the bridge.

In 1951 Fibreboard Products, Inc. ("Fibreboard") operated a logging camp, called "Camp One," a mile or so east of Heckelville. The PAW main line passed

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[1] Shown on aerial photos, Exs. 127-132-A, and on maps, Exs. 108, 134. In Exs. 128-132-A, Heckelville appears above "Scale" in bottom margin of each photo.

[2] Camp Creek shows clearly on Exs. 128, 129, 130, 131, 132 and 132-A. In Ex. 132-A the confluence of Camp Creek and the Soleduck is near right margin where red legend "1938" appears.

through Camp One and there was a long railroad siding there (HQ 2).[3] Fibreboard employed about 50 loggers at Camp One. Except for four or five men who lived at Camp One, these Fibreboard loggers lived at scattered places elsewhere, mostly in or near Port Angeles. Several lived within 7 or 8 miles of the camp (Tr. VI, 1993-97, 2005; VII, 2042, 61, 64, 2282-87; Ex. 14, Fibreboard Ex. No. 6; HQ 2, 3).

During hoot owl operations the Fibreboard men would commence to leave the woods in several crew trucks at about 12:30 p.m. daily. The driving time from the woods to Camp One was about 20 minutes. Upon arrival, the men would change from their logging boots at the bunk house and then most of them would board Fibreboard trucks bound for Port Angeles and intermediate points. On August 6, 1951, this crew commenced to roll into Camp One at about 12:50 p.m. (Tr. VI, 1993-97; VII, 2043, 2061-64, 2288-89; HQ 9).

There were also 12 to 15 logging truck drivers engaged in this operation. Usually there were several of these trucks at Camp One between 12 and 1 p.m., waiting to have their loads scaled (Tr. VII 2061-64, 2105-06, 2285-89; HQ 9).

The U. S. Forest Service's Snider Ranger Station ("Snider") was located on the Olympic Highway about four miles west of Heckelville. In 1951 Forest Service District Ranger Floe was the Forest Service of-

[3] Camp One appears in the lower left corner of Ex. 132-A. In Ex. 132 an arrow marked "Phone" points to Camp One. Sometimes Camp One is referred to in the record as Soleduck, the PAW name for its station there.

ficer in charge of the Soleduck District.[4] He had his home and office at Snider. Snider was the fire control headquarters for the Soleduck District and Floe was the chief fire control officer (Tr. II, 372-83, 390-94, 397-400, 521; III, 803; Exs. 61, 134).

Floe's subordinates stationed at Snider included District Assistant Evans, the fire control officer, whose duties included training and supervision of the fire suppression crew and lookouts; two timber sales officers, and one man designated as fire suppression crew foreman, all of whom were experienced fire fighters; about nine specially trained fire fighting personnel (fire suppression crew) with necessary equipment; and two lookouts, one of whom was stationed at North Point. A large stock of hand tools for fire fighting and vehicles to carry tools, personnel and water were maintained at Snider. Mrs. Floe, the District Ranger's wife, who lived at Snider, was employed by the Forest Service there and sometimes made and received telephone and radio calls (R. 8, 14, 15; Find. VII, R. 231; Tr. II, 394, 519-21, 531-34, 554-55, 700-02, 709, 713-14, 718-20; III, 986-88; Ex. 14).

Radios in the Snider Station, North Point, Snider trucks and cars and walkie-talkie radios of the Forest Service were all on the same wave length, exclusive to the Forest Service, and each could send and receive messages to and from each of the others (R. 176; Tr. II, 531-32, 720, 727-28).

There were kept at Snider a forest fuels type map re-

[4] The Soleduck District encompasses all the lands material herein. Its boundaries are outlined on Ex. 80 (Tr. 372-78).

lating to the Soleduck District and a slash hazard map showing the logging done each year and the burned and unburned slash areas left following such logging. Also, at Snider were a number of fire weather instruments to measure relative humidity, wind velocity and the moisture content and burning potential of forest fuels. Fire weather data and fire weather radio forecasts were received and recorded by the personnel at Snider (Exs. 12, 13, 14, 27, 37, 38, 44, 77, 80, 81, 86, 104, 107, 115, 116, 168, 176; Find. VII, R. 231; HQ 3, 4, 8).

The North Point Lookout ("North Point") was over 3000 feet above sea level on top of a ridge two miles northwest of Heckelville from which could be seen Camp One; the PAW tracks; the area south and west of Heckelville, including the 60-acre area (Exs. 112, 132-A); the westerly half of what hereafter is called the "1600-acre area"; and the area immediately west of the 1600-acre area. The lookout building was equipped with an instrument by which the lookout could locate accurately on a map (maximum error would not exceed 200 to 300 feet) "smokes" observed by him. North Point and Snider could communicate by two-way voice radio equipment on a radio frequency exclusive to the Forest Service (R. 175; Tr. II, 377, 522-27; III, 718-21).

Rayonier had a logging camp at Sappho on the Olympic Highway fourteen miles west of Heckelville. Near Sappho the PAW and Rayonier's private logging railroad were connected. Rayonier's locomotive was based at Sappho (HQ 3). About 140 Rayonier employees lived in the bunk houses at Sappho and about 12 or 15 other

Rayonier employees lived in their own homes at Sappho. On August 6 the Rayonier crews started rolling into Sappho by rail and by truck about 1 o'clock. By 2 p.m. most if not all of the 140 Rayonier employees had returned to camp (Tr. VI, 1878-90; Ex. 14; HQ 3).

The State of Washington operated a forestry office at Tyee on the Olympic Highway eighteen miles west of Heckelville (HQ 8) where it maintained a fire suppression crew of 7 or 8 men and fire fighting tools and equipment (Tr. III, 750-51; V, 1670-75; HQ 3, 8; Ex. 14).

Throughout the 1600-acre area and outside of it there were inter-connected logging roads which provided usable and safe access to all parts of that area[5] (Tr. III, 794; HQ 6, 7).

The Soleduck and Camp Creek had more than enough water to supply all fire fighting requirements in the summer of 1951. Water could be procured from both rivers through pumps and hoses and through tank trucks and pack cans by which water could be hauled or carried to all parts of the area (Tr. II, 593; V 1480).

Floe knew that easterly winds in the Soleduck Valley are usually hot, dry winds; that August and September winds with velocity up to 10 mph are usual in the Soleduck Valley; that 15 mph winds are not unusual; that 20 mph winds are more unusual but would be expectable; that 25 mph winds were even more unusual but could occur; and that 30 mph winds would ordinarily not be expected to happen but they could happen. Winds at higher elevations are of even greater velocity (R. 20;

[5] Many of these roads are shown on Exs. 61, 112, 128, 129, 132.

Find. I, R. 228; Tr. II, 715-17; Exs. 12, 13, p. III-1-3; 150, p. 23, et seq.; HQ 7, 7(a)).

The government-owned 60-acre area comprises a part of the flat area through which ran the PAW tracks.[6] This flat area in Section 30 previously had been logged and burned over in 1938. In 1951 scattered trees, 10 or 12 years old, were growing there. Among these small trees and in the more open areas, there were dry grasses, blackberry vines, Bracken fern, stumps and old, rotten logs remaining from the original logging. There was a tall snag standing in about the middle of that flat. Near the easterly end of the flat there was sapling second-growth timber in which there were fire hazardous snags and considerable "blowdown" (R. 10-12, 174-5, 234; Tr. II, 447-54, 456-460, 475-78; III, 1013; V, 1459-61; Exs. 111, 131, 162; HQ 6).

South of and uphill from the flat 60-acre area is the so-called 1600-acre area. It is a rugged, broken, mountainous area. Its westerly part had been logged in the late 1940's and the easterly part prior to that time. In 1951 those areas contained fairly heavy unburned logging slash, marked by red X's on Ex. 112 (Tr. II, 475-501, 709-711).

The other slash in the 1600-acre area had been burned. There were several old logging landings in the 1600-acre area where in 1951 there were concentrations of bark and other burnable logging debris (R. 177-78; Tr. II, 475-501, 709-711; Exs. 112, 113, 114, 148; HQ 7).

All sides of the 1600-acre tract abutted areas which on August 6, 1951, contained either fire hazardous forest

[6] The topography of the area south of Heckelville through which the PAW runs is shown on Exs. 111, 112, 128, 129, 132 and 132-A.

fuels or valuable standing timber. There were stands of mature green timber immediately south, east and west of the 1600-acre area. Also on the west, as indicated by red X's on Ex. 112, there were 120 acres which had been logged in 1946 and 1947 and upon which there was heavy logging slash. In the standing timber southwest of this heavy slash stood a number of fire hazardous snags.[7] Abutting the northerly side there was a stand of young second-growth timber (R. 174; Tr. II, 709-11; HQ 7).

On August 6, 1951, due to fire hazardous weather conditions, Soleduck District loggers were required by closure order of the Forest Service to operate on the "hoot owl" shift, starting at daylight (4 a.m. at that time of the year in the Soleduck District) and leaving the woods about 12:30 p.m. when the relative humidity drops so low that logging becomes fire hazardous (Ex. 150, p. 18; HQ 9; Tr. II, 721; R. 18).

The spring and summer of 1951 were among the driest on record. Little rain had fallen in the Soleduck District for several months prior to August 6, 1951. There had been a gradual increase in the fire hazard, and burning conditions in August, 1951, were severe (R. 175; Find. VIII, R. 231; Tr. II, 502-508).

A fire suppression plan for the Soleduck Forest Service Protective Area previously had been approved by the Supervisor of the Olympic National Forest to be followed and employed by Floe and his subordinates. The plan was in effect at all times herein mentioned.

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[7] The approximate snag area being as shown by the red crosshatchings on the aerial photograph, Ex. 129.

The plan included, among other things, a list of privately employed men and privately owned equipment available for fire fighting at all times. The fire suppression plan contemplated that Floe and his subordinates would call upon and use all men and equipment necessary to suppress and extinguish all fires within the Forest Service Protective Area as promptly as possible. As the forest officer in charge, it was one of Floe's duties to call upon and use such men and equipment (Find. V, R. 230; Find. VII, R. 231; R. 12; Tr. II, 373-382, 401-02; Ex. 14).

In this general vicinity the forest industries provided the primary occupation and means of livelihood of the residents. Protection and preservation of the forest was a matter of first concern, both to the residents and to timber mill owners and operators. Consequently, most men willingly and voluntarily would respond to calls for assistance in fighting fires and owners of equipment willingly and voluntarily would furnish their equipment when called for to fight fires (Find. VI, R. 231; Tr. 708).

Foreseeable Consequences of Negligence

The district court found the government negligent on August 6 and 7. He correctly stated the law:

> "All damages of a kind reasonably foreseeable as a consequence of failure to exercise reasonable care in the restraint and suppression of the fire may be recovered against the negligent party." (R. 179-80)

Finding IX, R. 232, reads:

> "On August 6, 1951, at and prior to the time

> when the Heckelville spot fire occurred, District Ranger Floe knew or should have known that a fire in that area which was not extinguished might burn continuously and progressively and might burn property for many miles in any direction, including westerly and southerly to the Pacific Ocean."

Because the rangers were fully aware of all of the facts and physical and weather conditions above described and of the fire-fighting rules discussed below, the harm which appellant suffered was clearly foreseeable and within the scope of the risk which their negligence created.

The Basis for the Government's Legal Duties

1. *The Government Owned the Land on Which the Fire Started and from Which It Spread Out of Control*

The government owned all of Section 30 and all of the land in the so-called 60-acre area, including the PAW right of way therein.[8] Some of the land in the so-called 1600-acre area was owned by the government (Find. IV, R. 230).

2. *The Government Assumed Duties Under the Cooperative Agreement*

At all times pertinent to this litigation the Forest Service was responsible for the fire protection of all lands material herein by virtue of a cooperative agreement executed under 16 U.S.C. § 572 and RCW 76.04-.400 between the United States and the State of Wash-

[8] The PAW had a contract vendee's interest in the right of way. However, in Washington, a landowner cannot absolve himself from liability to third parties for damages caused by negligent forest fire abatement, by contracting to sell the land to another (R. 193).

ington. The cooperative agreement required the Forest Service to protect these lands from fire and to take "immediate vigorous action" to control all fire occurring within the protected area. Rayonier knew this and reasonably relied on the government for this protection (R. 173-74; Find. V, R. 230-31; Exs. 24, 80).

3. *The Government Had Duties Imposed on It by RCW 76.04.450*

All of the government-owned lands on which the Heckelville fire originated and all of the lands to which it subsequently spread are Olympic Peninsula forest lands which Washington's legislature, prior to 1951, specially identified as fire hazardous and as requiring special protection. Floe and his subordinates were duty bound to avoid "any act which shall expose any of the forests or timber upon such lands to the hazards of fire" (RCW 76.04.450; Find. IV, R. 230).

4. *All Government Acts and Omissions Were Nondiscretionary*

All duties of the government as landowner, under the cooperative agreement and under RCW 76.04.450, were exercised at the local level by Floe and his subordinates. The acts and omissions of the government employees—found by the district court to have been negligent—were at the operational level and were not in the exercise of any discretionary function, as that term is used in the Federal Tort Claims Act (R. 195; Find. VII, R. 231; Find. XIII, XVI, R. 234-35; R. 239-40).

Fire Chronology

At all times pertinent to this case District Ranger Floe and District Assistant Evans knew all of the things above recounted. They had been stationed at Snider for many years. They had seen and observed the conditions in their area, knew the people in the area, knew the nature and extent of the operations of the various timber companies and of their working schedules, and had, themselves, worked directly in the preparation and compilation of the Fire Suppression Plan, designed for the express purpose of enabling them to get all necessary men and equipment to the scene of any fire in the shortest possible time. They had the most modern means of communication, including radio and telephone, and they had the most modern means of transportation and knew that it was available to them to fight fires (R. 8-10, 176; Find. VII, R. 231; Tr. II 372, 382-83, 426, 542, 600; III 985-88; Exs. 13, 14, 26, 28, 45, 46, 47 and 48; HQ 3, 4, 8).

What those Forest Service Rangers did or failed to do on August 6 and 7 must be viewed in the light of their knowledge and in the light of the facts. Their conduct must also be viewed in the light of the primary principle, repeatedly emphasized in the Forest Service Manual, Fire Control Handbook, and other texts, that the first and most important thing to do in fighting a fire in forest areas is to get to the scene of the fire as quickly as possible with all of the men and equipment necessary to put the fire *out* (R. 238-39; Exs. 12, 13, 150, 176).

Logistics, the matter of getting adequate men and supplies to the right place at the right time, is the function in which the Forest Service Rangers fell down during the first few hours of the fire August 6. Logistics, plus improper and inadequate utilization of men and equipment are the areas in which the Forest Service Rangers were deficient from mid-afternoon August 6 to early afternoon August 7.

This is what happened, and this is why the District Judge found the Forest Service negligent (R. 239; Find. XVI, R. 234-35; Ex. 14):

August 6, 1951, 11:15 A.M.

At 11:15 a.m. a PAW locomotive, eastbound with a trainload of logs, stopped at the Flight water tower to take on water and to allow the train crew to eat lunch. Flight is a short distance west of the point where the Heckelville fire was later started. Prior to reaching Flight the locomotive had started fires along the right of way. One of those fires was discovered under the standing train, and it was extinguished promptly by the train crew. Less than a mile back from there the locomotive had started another fire called "the Section 35 fire." Its existence was not then known to the train crew and was not reported to the District Ranger by the North Point lookout until 12:30 p.m. after it had been burning for at least an hour and 15 minutes. It was to the Section 35 fire that District Assistant Evans and his crew were first dispatched, as related below (R. 175-76; Find. X, R. 232; Tr. I 62, 303-07, 342-45).

12 O'clock Noon

The PAW train left Flight at noon and proceeded eastward to Fibreboard Camp One, where it stopped. On that journey the PAW locomotive threw sparks which started the fire which ultimately damaged appellant's property. That fire started on the PAW right of way in Section 30 due south of Heckelville and is called "the Heckelville spot fire." Thus, we know that the Heckelville spot fire was started about an hour after the Section 35 fire. The Heckelville fire was not discovered until 1 p.m. when the North Point lookout reported it by radio to District Ranger Floe at Snider, as related below (R. 16, 175-76; Find. X, R. 232; Tr. I 303-07, 342-45; Ex. 47).

The PAW train stopped at Camp One, where there was a telephone. The railroad crew had observed smoke to the west and reported that fact to its Port Angeles office and to Snider Ranger Station. The smoke observed probably was the Section 35 fire because it had then been burning at least an hour. The PAW crew had intended to return to the smoke with the locomotive to fight the fire with water from its tender, but found it was unable to reverse the locomotive because of a broken equalizer bar. This fact, as well as the smoke, was reported to the PAW Manager at Port Angeles, and that Manager then dispatched a railroad repair crew from Port Angeles to Camp One. The repair crew did not arrive until about 3 p.m. It should be noted that one of the PAW train crew remained stationed at the Camp One telephone continuously during the afternoon. Telephone messages from the Snider

Ranger Station and elsewhere could have been made to him or relayed to or through him at any time, and he could have conveyed such messages to the Fibreboard personnel at that same place (R. 16, 175-76, 232; Tr. I, 70-77, 161, 307-16, 344-52; Tr. II, 528; Exs. 47, 132).

12:30 P.M.

We go back now to the Snider Ranger Station at 12:30, when District Assistant Evans received by radio from the North Point lookout notice of the Section 35 fire. Ranger Floe was present and knew of the situation. Evans promptly called out his entire fire suppression crew then available at Snider (five men), and left with them for the Section 35 fire in a panel truck. They were equipped with hand tools, back-pack cans, a portable two-way voice radio, and a nonportable two-way voice radio installed in the truck. They drove to the scene of the Section 35 fire, approaching it from the west by way of a road which paralleled and was close to the PAW right of way. Before reaching the Section 35 fire they came upon a small spot fire about two feet in diameter between the tracks of the PAW right of way several hundred feet west of the Section 35 fire. It was so small that Evans knew it was not the smoke reported by the North Point lookout, so he left one man at that spot fire and proceeded to the Section 35 fire. He arrived there at 12:45 p.m., 15 minutes after the fire was reported and at least an hour and one-half after the fire started. The fire was then burning a length of about 200 feet on and to the north of the tracks

to a width of 50 to 100 feet. The five men then attacked that fire and soon had it under control. Upon his arrival at the Section 35 fire, Evans radioed Floe at Snider and told him of the fire's size and characteristics. Floe stated that he would try to get the PAW locomotive to return to that scene to help. It never got there because it had broken down. Nevertheless, this fire, 200 feet long and 50 to 100 feet wide, was controlled by five men (R. 16, 175-76; Find. IX, R. 232; Tr. II, 525-32; III, 988-1004; Exs. 47, 61).

Progress of the Heckelville Fire, 1 P.M.

When the North Point lookout reported the Heckelville fire by radio to Floe at 1 p.m., Floe had no doubt about its location. He also knew that if that fire were left unattended, it might progress to a major forest fire that could burn everything within a radius of 20 miles or more. He also then knew where his own Snider Station men were deployed. He knew that the Fibreboard logging crew and log truck drivers were rolling into the Fibreboard camp and would soon be on their way home. He knew that the Washington State Forestry Department fire suppression crew located at Tyee, 18 miles from Heckelville, was available with equipment. He knew that the PAW train had caused a series of spot fires. He knew that the Rayonier logging camp at Sappho, 14 miles from Heckelville, had over 140 men who were then rolling in from the woods, and that Rayonier had tremendous quantities of fire-fighting equipment and a number of crew trucks, as well as a locomotive with hoses and water. Unfortu-

nately for the timber owners, including the United States, and for the residents of Forks, Floe also knew that the Heckelville fire and the other fires along the right of way had been started by the PAW train and that, therefore, the PAW should be held responsible for fire suppression costs. What followed, and his neglect, can be explained only by Floe's wishful efforts to get the PAW to assume the financial responsibility for the cost of men and equipment which Floe knew would be needed to suppress the fires (R. 16, 17, 176; Find. VII, R. 231; Find. V, R. 232; Find. X, R. 232-33; Tr. II, 465, 519, 530-32, 543-45, 556-65, 583, 595, 600-04, 697-99, 704-05, 712, 721-23; Tr. III, 736-37, 739-41, 757-58, 767, 779, 832, 1005; Ex. 47).

By 1 o'clock, when Floe was advised of the Heckelville fire, he already knew that Evans and the Snider crew were busy on the Section 35 fire and might or might not be reachable by radio, depending upon their proximity to their panel truck, and on whether a walkie-talkie radio was at someone's side with the receiving switch turned on. Before 1:30 he knew that the PAW locomotive had broken down at Camp One and could not get to the fire. Long before that he could have learned from the North Point lookout that the locomotive was still at Camp One. He therefore knew that immediate help for the Heckelville fire would have to come from other sources (R. 16, 176; Find. X, R. 232; Tr. II, 547; Tr. III, 746-50, 1010-11; Ex. 47).

In spite of all this, Floe did not do one single thing concerning the Heckelville fire until 1:30 p.m., at which time he contacted Evans by radio at the Section 35 fire.

In the meantime he had relied exclusively on the hope that the PAW broken-down locomotive would get repaired and returned to the Heckelville fire. By this time the Heckelville fire had been burning for about an hour and a half (R. 16, 176; Find. X, R. 232; Ex. 47).

1:30 P.M.

Floe knew that Evans and his crew were about two miles away from the Heckelville fire and that there was no access between the Section 35 fire and the Heckelville fire except along the railroad track, or by return along the Olympic Highway past the Snider Station and on to Heckelville. From Heckelville men could either ford the river and walk several hundred yards to the scene of the fire, or they could drive on to Fibreboard Camp One and hike a mile down the tracks, or they could drive through Camp One on a logging road which would take them to a point several hundred yards southeast of the fire. Evans also knew this. Time, men and equipment were still matters of urgency (R. 17, 176; Tr. II, 552; Tr. III, 1002-12; Exs. 47, 61).

At this point Evans left the Section 35 fire to reconnoiter by driving farther down the road to a vantage point where he could see the smoke but not the fire at Heckelville. He then returned to the Section 35 fire and radioed Floe that he was taking three of his crew and would drive to Heckelville via Snider and that he planned to wade the Soleduck and walk to the Heckelville fire. *By this time it was 1:45 p.m. Floe had done nothing further in the meantime and did nothing fur-*

ther until 2:05 p.m. (R. 17, 176; Tr. II, 549, 552-53; Tr. III, 736, 757, 766, 1002-12; Exs. 40, 47, 61, 130).

2:00 P.M.

In the meantime, by 2 o'clock the PAW Manager had asked Rayonier to send the Rayonier locomotive from Sappho to the Heckelville fire, and Rayonier then telephoned Floe that it would do so and that the Rayonier locomotive would arrive at the Heckelville fire about 3 p.m. PAW also notified Floe at 2 p.m. that it was sending another locomotive and a repair crew from Port Angeles, which would arrive at Camp One about 3:30 p.m. (Tr. II, 757, *et seq.;* HQ 14).

At 2:05 p.m. the North Point lookout again radioed Floe that the Heckelville fire was going strong. There had been no communication between North Point and Snider between 1 p.m. and 2:05 p.m., although Floe, had he been interested, could have had progress reports both on the fire and on the PAW locomotive for the asking. Floe's first affirmative action to get outside help through anyone but the PAW was at 2:10 p.m.—two hours and 10 minutes after the fire started, and an hour and 10 minutes after he first knew of the fire. At that time he telephoned the state fire station at Tyee, but even then, all he did was to request that the state fire crew be placed on stand-by, which means that the state office should merely notify its crew that it might be called on for help. This is a far cry from asking help, although Floe then knew that the fire was and would continue to be unattended for some time to come (R.

176; Find. X, R. 232; Tr. II, 472-73, 533, 536, 561-67; III, 746-48; HQ 14).

2:30 P.M.

Evans and his three men arrived at the Heckelville fire at 2:30 p.m. They had with them only their hand tools, two back-pack cans and a walkie-talkie radio. When they got there, they found that the fire was burning between the tracks and on the north side of the tracks to a depth of about 100 feet and a length in an east-west direction of about 300 feet. There were also two spot fires, both on the south side of the tracks, which fires were 25 to 50 feet in diameter and about 100 feet apart. The wind was from the northwest at about 8 to 10 mph, with occasional gusts of greater velocity. Evans promptly called Floe by radio and notified him of the size of the fire. He did not report about the wind and did not request additional men and equipment. Evans testified that he could have controlled the Heckelville fire if he had had 10 men with him at 2:30 p.m., but he had just himself and three others and did not ask for more help. This, in spite of the fact that Floe could have had 100 men with equipment long before that hour, had he paid attention to business at 1 o'clock, when the fire was first reported (R. 17, 176-77: Find. X, R. 232-33; Tr. II, 537, 608-09; III, 768, 1009-16, 1024-28, 1038, 1045; IV, 1063, 1122, 1260-61; Ex. 13, p. III-1-1).

At 2:30 Floe called the PAW's President to ask him to request Fibreboard to order a Fibreboard bulldozer and crew to work on the Heckelville fire. He was still

concerned about getting the PAW to foot the bill. He also then called Rayonier's Sappho camp to request that Rayonier men with tools be sent to the fire. Finally, at 2:35 p.m. Floe telephoned Tyee and requested that the state fire crew of seven men with hand tools go to the Heckelville fire. All this time Floe knew that it would take from half an hour to an hour or more to get men to the Heckelville fire. He knew that the size of a fire increases in geometric proportion and that the longer he waited the larger the fire would be (R. 177; Find. X, R. 233; Tr. II, 559-60, 564-67; III, 736-37; Exs. 45, 47; HQ 14(a), 15).

3 P.M.

Evans stayed with his men at the Heckelville fire for half an hour and then left. Why he left, or why Floe permitted him to leave, we cannot explain. Evans had with him a walkie-talkie radio with which he could communicate freely with Floe, and Floe had radios and telephones at his hand with which he could communicate to all sources of help. Nevertheless, at 3 p.m. Evans radioed Floe that he and his three men were unable to control the Heckelville fire and that it was spreading and spotting ahead of them. He told Floe that he proposed to walk the PAW tracks to Camp One, a distance of more than a mile. He got there at 3:30 p.m., having stopped en route to stamp out two more small spot fires between the tracks. Just before reaching Camp One, Evans met a PAW crew of seven men with firefighting tools walking westerly on the tracks. He ordered one of them to check on the two

small fires Evans had just stamped out, and ordered the other six to accompany him to Camp One to await automobile transportation to a point on a logging road a few hundred yards southeast of the Heckelville fire (R. 17, 177; Find. X, R. 233; Tr. III, 1012, 1029, 1035-37, 1047; Exs. 61, 112, 131, 132-A).

In his memorandum decision, after recounting in general terms the conditions that existed on August 6, and that ordinary care under those circumstances "requires urgent speed, vigorous attack and great thoroughness in reaching and putting out a fire" in the forest areas, the district judge stated that "the Heckelville spot fire was not attacked as promptly, vigorously and continuously as ordinary care required * * * " (See R. 238-9).

Finding XVI, R. 234-5, is an explicit finding of negligence.

The district judge also agreed, R. 283-84, that:

> " * * * the [Heckelville] fire was operating as a result of the negligence in a larger area than it would have been had there been no negligence. * * * by reason of that fact this fire had more areas in which it could break over the lines on the afternoon of August 7 and get into the 1600-acre area."

3 P.M. to Nightfall

Shortly after Evans left the Heckelville fire at 3 o'clock, more aid started arriving, but he was not there to organize it. The Rayonier locomotive and tank car from Sappho had to stop just outside the westerly end of the fire. It had three or four men plus two Forest

Service men picked up as the locomotive passed by the Section 35 fire. The Rayonier train crew pumped water on the westerly edge of the fire through a 200-300-foot hose (R. 177; Find. X, R. 233; Tr. II, 558-60; III, 1052; IV, 1372-76; V, 1442-46, 1640-52; VI, 1832-34, 1847-50; HQ 19-20).

By 4 p.m. the state fire crew of seven or eight men and six PAW section men, all with hand tools, had commenced work at the head of the fire, and two additional Rayonier crews totaling 25 to 30 men had arrived with hand tools, and part of the latter worked on the northerly fire line until dark (R. 177; Find. X, R. 233; Tr. II, 567-68; III, 1049-59; V, 1455-58; VI, 1798 *et seq.*, 1822-34, 1847 *et seq.*; HQ 19-21).

By 5 p.m. two Fibreboard bulldozers, a PAW locomotive, four Rayonier hand pumps and perhaps 15 additional men had arrived at the scene. Two portable pumps were placed in Camp Creek and hoses were run up over the Camp Creek Ridge to the south perimeter of the fire (R. 177; Find. X, R. 233; Tr. II, 565; III, 1051; VI, 1832-34; HQ 19-21).

Floe did not go to the fire until after 4 p.m., but even then he did not undertake to organize a fire-fighting plan. Crews were building a hand trail on the slope west of and in front of the sapling timber toward the easterly end of the Camp Creek Ridge, and a bulldozer was making a trail from the logging road toward the easterly end of Camp Creek Ridge. There was no appreciable fire fighting conducted after 5 p.m., although the Rayonier locomotive crew continued to pump water

on the fire at the westerly end until 6 or 7 p.m. (R. 177; Find. X, R. 233; Tr. I, 275; II, 574-77, 579-80, 587-88, 591-92, 594; III, 1051; IV, 1056, 1183; V, 1651-52; VI, 1832-34; Exs. 111, 131; HQ 19-21).

When the Forest Service ordered the men off the job in late afternoon August 6, the fire had burned an area of about 60 acres. Humidity had risen materially and the wind was quieted. The fire was still on the flat but had reached about to the toe of the slope of Camp Creek Ridge (R. 177; Tr. I, 131-32, 283-84; II, 579; IV, 1064; VI, 1184; Exs. 39, 40, 41, 43, 111, 131).

The Night of August 6-7

As noted, the only persons left at the fire after dark were a few men tending the two hoses on the ridge near the south side of the fire, and a couple of men the PAW had stationed to guard the bridge over Camp Creek at the west end of the fire. That night absolutely nothing else was done on the fire and no fire trails were built. There was a conference of Forest Service men late that evening, at which a plan was drafted for fire fighting the next day, and arrangements were made to have additional tractors and men on the fire August 7 (R. 177; Tr. I, 131-32, 231-32, 271-73, 281-84; II, 594 *et seq.;* IV, 1065; VI, 1832-34).

The plaintiffs' experts, men of wide and responsible experience in fire fighting over many years, all insisted that prudence and proper action demanded intensive work directly on the fire during the night. Humidity was high (80%) and the wind was quiet, so fire would have made little progress. The ground was relatively

flat and safe to work on, and fire trails could and should have been constructed to assure the fire's containment in the flat area and to prevent its spread up the slope of Camp Creek Ridge, where it might (and subsequently did) endanger the adjacent slash and timber. Men, tools and equipment were abundantly available for this purpose and could have built trails completely around the 60-acre fire by 8 or 9 a.m., August 7 (Tr. VIII, 2393-98, 2615-18, 2651-58; IX, 2724, 2730, 2877-80; X, 3060-64; Exs. 12; 13, p. III-1-4; 40; 41; 43; 150, pp. 41-43).

This inattention and negligence are included within the district judge's Finding XVI, when he said:

> "District Ranger Floe and his subordinates * * * failed to act as promptly, vigorously and continuously as they were required to do in the exercise of ordinary care in attacking in the Heckleville spot fire, and in attempting to confine it to the 60-acre area. * * * " (R. 235)

This also falls within the purview of the statement,

> " * * * the fire was operating as a result of the negligence in a larger area than it would have been had there been no negligence. * * * by reason of that fact this fire had more areas in which it could break over the lines on the afternoon of August 7 and get into the 1600-acre area. * * * " (R. 283-84)

August 7—Morning

Dawn broke between 4 and 5 a.m. on August 7. By all standards and in the undisputed opinion of experts, dawn is the best and most effective time to fight a fire. The humidity is still high, there is little or no wind,

and daylight permits more effective operation of bulldozers and equipment. Yet not a man or piece of equipment was working on the fire at dawn. In fact, it was not until between 6 and 7 a.m. that work started (Find. XI, R. 233). This flagrant failure was also within the scope of the trial judge's findings that the Forest Service men failed to act as promptly, vigorously and continuously as they were required to do (R. 18, 177; Tr. II, 615-26; IV, 1066, 1073-75; V, 1395, 1471-72, 1546-47; VIII, 2398-2401, 2616-18, 2656-58; IX, 2879-80; X, 3063-67; XIII, 4163; Exs. 12; 13, p. III-1-4; 38; 39; 40; 41; 43; 111; 150, p. 42; HQ 21-22).

Afternoon, August 7 and Later

By 12:30 p.m. August 7, fire trails had been constructed around the fire, but it should be noted that the fire trail along the south boundary of the fire was at the top of the ridge, rather than at the toe of the ridge where it could have been constructed during the night and early morning hours. As a result, the fire crept up the slope of the ridge during the morning (R. 18, 177; Find. XI, R. 233; Tr. II, 615, 620-26; IV, 1074; V, 1406, 1470, 1471).

About 2:30 p.m. the breeze stiffened and carried sparks and fire up the ridge and over the fire trail into the adjacent slash and sapling timber—precisely the event which could have been avoided had the Forest Service acted as promptly, vigorously and continuously as they were required to do in the exercise of ordinary care (R. 177; Find. XI, R. 233; Tr. II, 615, 619-25; IV, 1073-75; V, 1474).

The fire that blew over the fire trails the afternoon of August 7 engulfed an area of 1600 acres to the south and southeast of the Heckelville spot fire (R. 18). See attached Appenix E and Exhibit 112.

The fire was contained within the 1600-acre area by August 10. To contain it, hundreds of men worked and much equipment was used, with work going on day and night. See Exhibit 66 for details of the organization and of men and equipment. During the three days needed to bring the 1600-acre area fire under control the Forest Service spent many times what it would have cost to suppress and completely control the fire by 2 or 3 p.m. on August 6, had District Ranger Floe acted as promptly and vigorously as prudence and his duties required, for it took several hundred men and lots of equipment more than three days to bring the fire under control within the 1600-acre area (R. 18-20, 177-78, 203; Find. XI, R. 233; Find. XII, R. 233-34; Exs. 112, 127, 134, 148; HQ 19-25).

We do not advocate extravagance, but it is impossible to condone neglect of duty or penny-saving at the risk of millions of dollars of property.

Because of neglect, the spot fire became a 60-acre fire. Because of neglect, the fire became a 1600-acre fire. From the 1600-acre stage the fire escaped and burned everything within an area 20 miles in length and up to five miles in width. It is this continuous fire which damaged appellant and many others (R. 175, 177, 178; Find. XII, R. 233-34, R. 258-59).

August 11 to September 19 —

The 1600-Acre Mop-Up Period.

A fire trail was built around the perimeter of the 1600 acres (R. 198).

In the mop-up, effort was made to get the fire dead out within a strip approximately 50 feet wide just inside the perimeter of the 1600-acre area. Mop-up elsewhere in the area included putting out smokes whenever they were spotted. Smokes would appear from time to time during the period from August 11 to September 19 in many parts of the 1600-acre area, including parts of the 50-foot strip around the perimeter (Tr. IV, pp. 1099-1103). The number of men working on mop-up was gradually reduced until September 1, after which only about five men were kept on (Tr. IV, pp. 1103-1109). They worked only from 8 a.m. to 5 p.m. The men working on mop-up were not deployed equally all over the 1600 acres, but spread in crews and would be moved from place to place as needed to put out smokes and fires.

Within the 1600-acre area were several so-called landings, which are points to which, in the course of logging, felled and bucked logs are yarded for loading onto trucks. At landings logs are trimmed and sometimes broken, and some bark is knocked off in the handling process. Consequently there are accumulations of logging debris and inflammable material at and around landings. Two of those landings near the westerly side of the area are indicated on Ex. 112 as L-1 and L-2. Landing L-1 was adjacent to a gravel pit, and while it

had little or no debris on its surface, there was debris accumulated under the dirt and gravel which had been placed on its surface, and fire continued to burn and smolder in that landing (R. 19).

Landings L-1 and L-2 showed smoke from time to time, usually during the middle of the afternoon. Floe and Evans knew of the existence of fire in these landings (R. 177-8).

It is of special significance that two fires broke out on the afternoon of September 13, 1951 (just one week before the big break-out), adjacent to the fire line on the west side of the 1600-acre area. The points at which they broke out are indicated on the map, Ex. 112. Several Forest Service men and a Fibreboard tank truck suppressed those fires by 2:00 a.m. the following morning (R. 198).

Escape of Fire from 1600-Acre Area—Sept. 19-20

During the night of September 19-20 east or northeast winds occurred, bringing lower humidity and warm temperature. At 3:15 a.m., September 20, fire was observed west of the 1600-acre area by a State lookout stationed about 20 miles west of the 1600-acre area. The District Ranger was notified of the fire at 3:45 a.m. by telephone. The fire spread very rapidly, finally burning an area approximately 20 miles in a northeast-southwest direction and up to five miles in a north-south direction. The approximate boundary of the fire is shown on the aerial photograph, Ex. 127, and on the maps, Exs. 134 and 148. The fire reached

the vicinity of Forks about 9:30 a.m., September 20. Appellant's lands, timber and other property were burned, resulting in damage to appellant, the amount of which has been stipulated to be $895,000.00, for which recovery is herein sought (R. 178, 200, 173).

By the time the fire was discovered there was nothing anyone could do about it, and it was not until four days later that, with the aid of rainfall, the fire was controlled.

While appellant has asserted and is convinced that the Forest Service was negligent in its mop-up and care of the fire in the 1600-acre stage and in failing to have a patrol present during the night of September 19-20, when the fire escaped, the trial judge has found that it was not shown by a preponderance of the evidence that the government failed to use reasonable care during the mop-up period or during that night (Finding XVII, R. 235). We assume, solely for purpose of argument, the correctness of that finding.

There is no question that damage sustained by appellant came from the fire that started August 6, spread to the 1600-acre area on August 7, and escaped from the latter area September 20 (R. 233-4, 178). During the argument on post-trial motions, the court said (R. 259):

> "There again it is so self-evident. It is silly to state it. Nobody is suggesting that plaintiffs' damage came from any other source except the fire which escaped on this morning from the 1600-acre area."

QUESTIONS INVOLVED

1. Where there is undisputed credible evidence, including that of the government's own witnesses, that the fire could have been completely extinguished by exercise of ordinary care in its initial stages:

> (a) has it been established by a preponderance of the evidence that there is a causal relationship between the government's negligence and the existence of fire in the 1600-acre area; and
>
> (b) may the district judge justifiably disregard all such undisputed credible evidence?

2. Where the district judge has found that small fires in or near heavily forested Soleduck District lands during the hot and dry fire season of 1951:

> (a) "may be readily controlled and suppressed by prompt and thorough action"; (b) "rarely remain small or die out unattended without active control and extinguishment"; (c) "by the minute are more difficult and dangerous to confine and control as they spread under conditions of wind, heat and low humidity"; (d) require "urgent speed, vigorous attack and great thoroughness" in suppression; (R. 197, 238-9);

and where the district judge also has found that Washington forest fires are:

> "extremely dangerous," have "tremendous potential for damage to life and property" and by reason of "a few minutes' delay, a man or two less than needed and too little of the right kind of equipment" may spread from "a small fire quickly disposed of" to "a conflagration of extensive proportions" constituting "great hazard of vast in-

jury and damage" and "resulting in great loss of life and property" (R. 193-97, 238-9; Find. IX, R. 232),

and where it is self-evident that Rayonier's damage is precisely within the risk thus defined, was the government's August 6-7th negligence a proximate cause of Rayonier's damage?

3. If the government's August 6-7th negligence was the cause in fact of the risk of harm that spread to the 1600-acre area and if that risk of harm continued until acted upon by the September 19-20th wind and weather which carried fire to appellant's property:

(a) does the fact that the wind and weather were so exceptional as to be considered an "act of God" relieve the government from liability; and

(b) is the government to be relieved of liability because its active negligence and the "act of God" did not occur simultaneously?

All of these questions were raised by appellants' motion to alter and amend findings of fact, conclusions of law and judgment and to make additional findings and in the oral argument thereon (R. 219-24, 244-95).

SPECIFICATIONS OF ERROR

The district judge erred:

1. In making each of the following findings; in denying appellants' motion to delete the same; and in denying requested alteration and amendment thereof (R. 221-24):

(a) The last sentence of original finding XII (R. 211), amended finding XIII (R. 234). See R. 267-69;

(b) The last two sentences of original finding XV (R. 212); the last two sentences of amended finding XVI (R. 234). The issue on this finding was raised by necessary implication by appellants' motion and was the subject of oral argument (R. 282-86);

(c) Original finding XVII (R. 213), amended finding XVIII (R. 235-36). See R. 269 *et seq.;* and

2. In making the following conclusions; in denying appellants' motion to delete the same; and in denying requested alterations and amendments thereof (R. 222-23):

(a) The second sentence of original conclusion III (R. 214), amended conclusion III (R. 236);

(b) Original conclusion V (R. 214), amended conclusion V (R. 237);

(c) Original conclusion VI (R. 214), amended conclusion VI (R. 237); and

all similar findings and conclusions in the memorandum decision (R. 228, 236).

All the foregoing findings and conclusions are erroneous because they disregard undisputed credible evidence that the government's negligence was the proximate cause of the stipulated damages.

3. In his application of the law governing the intervention of fortuitous weather upon the fire in the 1600 acres caused by the government's August 6-7th negligence. Memorandum decision, R. 201-03, 239.

4. In denying Rayonier's motion to enter judgment in favor of Rayonier (R. 216-17, 223, 270, *et seq.*).

SUMMARY OF THE ARGUMENT

First, the negligence of the Forest Service during the initial period of the fire, August 6 and 7, was clearly the cause in fact of the existence of the fire in the 1600-acre area, and the risk of harm thus negligently created continued until it was acted upon by the wind during the night of September 19-20.

Second, the risk of harm thus negligently created directly and proximately contributed to and caused the damage to appellant when the wind carried the fire out of the 1600 acres and into appellant's property.

Third, the government's August 6-7th negligence was the proximate cause of Rayonier's damage because: the harm that Rayonier suffered was within the scope of the general type of harm, a risk of which was created and increased by said negligence; the continuing risk of that harm did not expire prior to September 19-20; and because the Forest Service's subsequent mop up operations, even if prudent, did not insulate the government from liability.

Fourth, the fortuitous weather of September 19-20 cannot exonerate the government from liability for its August 6-7th negligence because the fortuitous weather did not cause Rayonier's damage and because, as a matter of law, when a person's negligence has created a continuing risk-pregnant condition which is acted upon by an extraordinary force of nature, the person who has created the risk will be liable unless the harm suffered is of a kind entirely different from and outside the scope of the risk which made the defendant's conduct negligent.

Therefore the government is liable, and this Court should direct entry of judgment for appellant.

ARGUMENT

PART I

The Negligence of the Forest Service Employees on August 6 and 7 Was a Cause in Fact of the Fire in the 1600-Acre Area

With all due respect, we submit that the trial judge erred materially, as a matter of law, in finding that it has not been established by a preponderance of the evidence that had the Forest Service's negligence not existed, the fire would have been contained in the 60-acre area, or that there is any causal relationship between that negligence and the ultimate existence of fire in the 1600-acre area (Finding XVI, R. 235). To arrive at that finding he failed to give due weight to undisputed evidence, and he erroneously characterized as speculative the evidence "as to whether or not there would or would not have been fire in the 1600-acre area regardless of the negligence of the defendants" (R. 285, R. 235).

The record includes those pages of the trial judge's Memorandum Decision and his personally composed Findings of Fact which, after argument on appellant's post-trial Motions, the trial judge ordered withdrawn. Compare the original Memorandum Decision (R. 198 and 202) with amended pages of the Memorandum Decision (R. 239 and 240). Also compare original Finding XV (R. 212) with Amended Finding XVI (R. 234-235). See also R. 241-243.

Before these amendments were made by the trial

judge, he explicitly stated that because of the negligence of the Forest Service,

> " * * * the first small fire on the right of way spread from its original limited area to the 60-acre tract on August 6 and on the following day to the 1600-acre area * * *." (R. 198)

and that

> "Because of the failure of the United States employees to expeditiously and fully perform such duty during the initial period of the fire it spread first to the 60-acre tract and from there to the 1600-acre area." (R. 202)

Original Finding XV read:

> "Such failure to exercise ordinary care proximately contributed to causing the spread of the original Heckelville spot fire to the 1600-acre area." (R. 212)

The trial judge did not change his mind as to the facts which had been established by the evidence. He said (R. 292), " * * * I am satisfied that the Forest Service in what I call 'the initial fire period,' August 6, 7, did not act as promptly and fully and effectively as reasonable care required. I do not in any manner withdraw from that by anything that I may now say. * * * " Precisely what it was that the the trial judge tried to express by his amendments is rather confused. The following colloquy between the court and the government's attorney appears (R. 286):

> "Mr. Cushman: Would it be fair to state in effect, then, that such failure to exercise ordinary care was one of the causes?

THE COURT: Well, of course, that follows from it. You don't have to state it."

The trial judge agreed (R. 283-4) that the fire was operating as a result of the negligence in a larger area than it would have been had there been no negligence, and that by reason of that fact the fire had more areas in which it could break over the lines on the afternoon of August 7 and get into the 1600-acre area. Yet in his amendment to the Memorandum Decision he added (R. 240) " * * * It is not shown by the evidence that but for such negligence the Heckelville fire would have been wholly extinguished prior to extending to the 1600-acre tract. * * * "

The trial judge was clearly in error. The undisputed evidence establishes that the fire could have been controlled and extinguished at the spot fire stage and at all other stages prior to its reaching the 1600-acre area by the exercise of due care. The fire never would have reached the 1600-acre area but for the negligence of the Forest Service.

We direct this court's attention to Findings of Fact VI, VII, VIII and IX (R. 231-232). The trial judge there refers in general terms to the facts recounted in the Statement of the Case in this Brief. There is no dispute about those facts. On the basis of those facts the trial judge found in Finding XVI (R. 234) that the employees of the United States "failed to act as promptly, vigorously and continuously as they were required to do in the exercise of ordinary care in attacking the Heckelville spot fire and in attempting to confine it to the 60-acre area." Conclusion of Law IV (R. 237) is: "Defendant United States was negligent

in failing to use reasonable care in fighting the Heckelville fire on August 6 and 7." In his amendment of the Memorandum Decision the trial judge stated: "The United States employees failed to expeditiously and fully perform such duty during the initial period of the fire * * * " (R. 242-243).

If the United States employees failed to act as "promptly, vigorously and continuously" as they should have "in attacking the Heckelville spot fire" and "in attempting to confine it to the 60-acre area," the trial judge necessarily had in mind that under the facts and conditions as they existed:

> The Forest Service should have called for assistance from outside sources more promptly so as to get sufficient men and equipment to the fire sooner than was done.
>
> Vigorous action would have had more men and equipment on the fire, and more men and equipment were available to go to the fire.
>
> Continuous action, which prudence required, would have kept men fighting the fire the clock around on August 6 and 7.

It is significant that nowhere and at no time did the trial judge ever find, or express himself as believing, that the fire would have escaped the spot fire stage or would have escaped from the 60-acre area had the Forest Service not been negligent.

Let us review what would have happened had the District Ranger acted promptly and vigorously.

> A State fire suppression crew of seven or eight men were available at Tyee, a distance of 18 miles from

Heckelville, and could have been at the fire within 55 minutes. They were not called until 2:35, and arrived at 3:30.

Fifty loggers were rolling into Fibreboard Camp One from 12:50 p.m. on, and several logging truck drivers were also there. That is a distance of a little over a mile from the fire, and they could have been on the fire within 30 minutes if they had been called. They were not called.

The Rayonier logging camp at Sappho had over 140 loggers arriving from the woods operation about 1:00 o'clock. Those men lived at Sappho. Also at Sappho were large quantities of fire-fighting tools and equipment, as well as buses and trucks to carry the men close to the scene of the fire. A large force from Sappho could easily have been brought to the scene of the fire within an hour and one-half after they were called. They were not called until after 2:30 p.m. In addition there was a locomotive with water and fire-fighting hoses that could have been brought to the fire about an hour after it was called. It was not called until 1:45, and then it was called by the PAW, not by Floe.

While there was no lack of fire-fighting tools and equipment at the above sources, the Snider Ranger Station had on hand enough to equip 100 men, if needed.

It is thus apparent that more than sufficient men with tools could and would have reached the scene of the fire between 1:30 and 2:30 p.m., and in any event much sooner than they did arrive, had the District Ranger acted promptly and vigorously as the circumstances required.

On the undisputed facts, the Heckelville fire would never have gotten beyond the spot fire stage, had due care been exercised by the Forest Service. The government's own witnesses support this.

Bear in mind that it is not necessary to show that the fire could have been suppressed by any precise hour or at any precise stage. Witnesses express their thinking in various terms. The important fact is that the fire could and would have been suppressed before it reached that stage which made it difficult to control and which, by its nature, increased the danger and potential for spread to larger areas.

District Assistant Evans, Fire Control Officer and the first man who reached the fire, at 2:30 p.m., said he then could have controlled the fire with ten men (Tr. III, p. 1038).

District Ranger Floe, the man in charge, the man whose duty it was to get sufficient men and equipment to the fire, said the fire could have been put out with ten men or less (Tr. II, p. 608-9; Tr. III, p. 743).

The government's expert, George Drake, said ten or fewer men could have controlled and extinguished the fire (Tr. XII, pp. 3947-8). He also testified that as late at 3:30 p.m., twenty men could have controlled it (Tr. XII, pp. 3949-50).

The record of the Forest Service's own Board of Review contains the following comment by Mr. Gustafson, the Chief Fire Control Officer of the entire Service, Exhibit 123, second page (numbered "7"):

"There are some phases of initial action on

these series of fires that do not measure up to what I consider should have been done. District Ranger Floe at Snider knew by 1:00 P.M.—lookout initial report of fire which later got away—that the railroad had started at least 3 fires. He should have expected the worst and proceeded on the basis that there might be more fires. If he had done this he probably would have requested (1:05 P.M.) the State suppression crew of 7 men to start to Snider to await developments. If they had gotten underway by 1:10 P.M. they probably would have arrived on the fire discovered at 1:00 P.M. by around 2:00 P.M.; probably a half hour ahead of the Forest Service suppression forces. It is probable that this action may have resulted in the control of the Port Angeles Western fire at a couple of acres instead of in excess of 30,000 acres. At least there was this chance we lost which, if taken, may have saved this disastrous fire."

That is all testimony of the government's own witnesses on the question of the number of men necessary to put out the fire at the spot fire stage.

Charles Cowan, Manager of the Washington Forest Fire Association for thirty-one years, testified that if prompt action had been taken, from 7 to 12 men could have suppressed the Heckelville spot fire (Tr. VIII, p. 2393).

H. H. Jones, a man of long experience in forest fire fighting, and from 1940 to 1943 in charge of the Washington State Forestry Division Fire Control, testified that in his judgment a prudent ranger would have dispatched 44 men to arrive at the scene by 2:30 p.m. (Tr. VIII, pp. 2593-4).

Walter Schaeffer, Associate Professor in the University of Washington College of Forestry and with extensive forest fire fighting experience, testified that the State fire crew, of 7 or 8 men, could have suppressed the fire if they had been ordered out promptly (Tr. VIII, p. 2651).

Norman Jacobson, a man of many years' experience in fighting forest fires, testified that a prudent district ranger would have promptly called the State fire crew of seven or eight men and that they could have put the Heckelville fire out by 2:30 or shortly thereafter (Tr. X, p. 3056). Mr. Jacobson also described other available "flying squadrons," *e.g.,* the U. S. Park Service, who could have been at the fire by 3:00 p.m.

"Get the Fire While It's Small"

Prompt action by Floe was notably lacking. He tried to justify his inaction by saying that he relied upon the PAW locomotive at Camp One to return to the fire. This excuse is a poor one, as the trial judge found.

At 12:45 p.m., after receiving Evans' radio report from the Section 35 fire, Floe said he would ask the PAW locomotive to return from Camp One to help Evans at that fire, and he then telephoned the PAW for that purpose (Tr. III, p. 748). It would take but a few minutes for the locomotive to be on its way back. There is no reason for Floe not to be informed that something was wrong because he not only could get information by telephone at Camp One, but he also had the North Point Lookout who could observe Camp One and the PAW tracks and could report to Floe by radio. When

he learned at 1:00 o'clock of the Heckelville fire, there was immediate need for further information as to the whereabouts of the locomotive and whether it could help on this new fire. Yet he did not act on the basis of its breakdown until 1:45, when he had PAW call for the Rayonier locomotive at Sappho. In the face of the critical fire hazard and Floe's knowledge that the PAW locomotive had already started several fires, Floe was obviously imprudent in his long delay before calling for outside help. Add to that Floe's knowledge at 1:00 p.m. that the Heckelville fire had already been burning about an hour, that there were severe fuel hazards in the open flat area around the Heckelville fire, that fire increases in geometric proportion, and that the effective range of a locomotive and its hose is limited, not only by length of hose, limited water and small crew, but also by its inability to get too close to fire, and it is obvious that Floe just wasn't thinking, or that he was foolish or negligently indifferent. The judge so found. The Forest Service Board of Review so found. The expert witnesses so believed. And common sense compels the same conclusion.

Exhibit 150, an accepted text on fire fighting, says (p. 33):

> "Initial action on small fires. Hit it hard at the start and have it over. Take enough men to make sure of that."

and at page 33 it says:

> "Summon aid if needed." (Tr. III, p. 778)

Exhibit 13, The Forest Service Fire Control Handbook, says, on page 1:

"Whether a smokechaser or firegoer is dispatched to a fire alone or is placed in charge of a small crew, the objective to 'Get the Fire While It's Small' remains the same."

Mr. Floe agreed that a cardinal rule is to get the fire quickly and while it is small (Tr. III, p. 761).

Exhibit 13 says, p. 15:

"Success in fighting a fire depends to a considerable extent on being able to anticipate the burning conditions of the future as well as to recognize those of the present."

Page 14 enumerates conditions to consider in planning the attack on a fire, including slash areas and spot fires that are spreading rapidly.

Exhibit 150 says on page 41:

"Fire fighting is the acid test of a protective organization and men. It is an emergency job where success or failure hinges not only on experience and skill but also to a very large extent on the speed with which various phases of the work are successfully completed. *The urgent need for speed must be kept constantly in mind. There is need of speed in checking all rapidly advancing fires before they cover a large area.*" (Italics supplied) * * * "It is this necessity for speed which justifies large crews, long hours and maximum efforts * * *." (Tr. III, p. 779)

To all of these quotations District Ranger Floe professed to subscribe. But in the face of these sensible, obvious principles he did practically nothing—and absolutely nothing effective—for an hour and a half after he first learned of the fire.

With such a record of responsible and undisputed testimony of the men at the scene of the fire and of the experts for both parties, and the basic principles prescribed by the textbooks, how can it be said that it is a matter of speculation and cannot be determined as a reasonable probability, under the evidence, as to whether the fire might have been contained or suppressed at the spot fire stage? Where in the record is there any evidence, credible or otherwise, to the contrary? There is none. Upon what grounds could the trial judge disregard that evidence or say that it is not reasonably probable that the fire could have been contained or suppressed at the spot fire stage? The trial judge erred. Since the fire could have been contained and suppressed at the spot fire stage but was not because of negligence, there is necessarily a causal connection between that negligence and the subsequent larger fire. Had there been no negligence, there would have been no later fire.

Negligence After the Spot Fire Stage

The trial judge found the Forest Service employees to be negligent all through the August 6th and 7th period, and that negligence relates to the suppression and containment of the fire within the 60-acre area, as well as to the earlier spot fire stage. He found the fire was not fought "vigorously and continuously." After men did arrive at the Heckelville fire at 2:30 p.m., August 6, the only time when fire-fighting activity was not "continuous" was from evening of August 6 to between 6:00 and 7:00 a.m., August 7. It necessarily follows that the trial judge found the Forest Service to be negligent in

not fighting the fire throughout the night of August 6 and 7 and in not having a large complement of men and equipment at work by dawn, around 4:00 a.m., on August 7.

The following factors and rules in fire fighting are established by the texts and subscribed to by the expert witnesses:

The Forest Service Fire Control Handbook, Ex. 13, p. 4, says:

> " * * * Light fuels dry out during the day when air is dry and absorb moisture at night when the air is damp.
>
> Therefore, a fire usually burns more rapidly in the daytime than at night. Firefighters make use of this factor by doing all work possible on a fire during the night and early morning when the fuels are the dampest. * * * "

Ex. 13, p. 18:

> "Under normal conditions, forest fuels recover moisture between the 4:30 p.m. reading and the 8:00 a.m. reading on the following day. * * * "

Ex. 13, p. 23:

> "*Fire Habits*: It can generally be expected that the worst burning period of the day will be between 10:00 a.m. and 5:00 p.m. Under normal conditions fires die down after 6:00 p.m. and are more susceptible to control. During the night, fires usually spread the least, but they pick up gradually after sunrise. These changes are usually due to variations of the relative humidity and fuel-moisture content. * * * "

Ex. 13, p. 40:

> " * * * Night scouting is particularly important during the first night, and the information obtained made available to the fire boss in sufficient time so action can be taken at daybreak.* * * "

Forest Service Manual, Ex. 12, Section 602.4, Subsection G:

> "Night work is *required* if conditions permit. Otherwise, attack with full morning shift strength on the control line at daylight is mandatory. Double or triple shifting of crews and overhead with an overlap during the heat of the day is desirable under many conditions."

Ex. 150, p. 41, says:

> "There is need for speed to get fires under complete control before 10:00 a.m. * * * It is this necessity for speed which justifies large crews, long hours and maximum efforts * * * "

> "For the first day it is desirable to attack as soon as crew arrives. If by working the balance of the day and all night they can control the fire, go to it."

Plaintiff's expert witnesses, whom the trial judge obviously believed, testified that a prudent ranger would have had men working throughout the night of August 6-7 building hand trail around the fire and burning out areas inside the fire trail, and would have had considerable men and equipment actively working on the fire at the first crack of daylight, about 4:00 a.m., on the morning of August 7. They were all of the opinion that had such work been carried on, a fire trail around the 60 acres would have been completed before 9:00 a.m., August 7, and that the fire would not have

escaped from the 60-acre area in that event. Charles C. Cowan, Tr. VIII, pp. 2396-2401. Walter H. Schaeffer, Tr. VIII, pp. 2651-2657. H. H. Jones, Tr. VIII, pp. 2615-2618, Tr. IX, pp. 2876-2880. Norman G. Jacobson, Tr. X, pp. 3060-3065.

Even Leslie L. Colvill, of the U. S. Forest Service, testified (Tr. VIII, p. 4168) that he thought a District Ranger who, having the men and equipment available to do so, failed to have a fire trail around the area by 10:00 a.m., and who failed to start work at daylight in the morning, would be imprudent.

Bear in mind that there were ample men, tools and equipment available for fighting fires around the clock. It is worthy of note that when the fire got into the 1600-acre area, there were hundreds of men on the job night and day. See Exhibits 65, 66 and 158. The trial judge made a special point to find that fire and other perils in forest areas are a matter of great concern to the people in that vicinity, and he also made special note of the Fire Suppression Plan (Ex. 14), which sets forth a list of the available men and equipment in the general area.

The foregoing fairly summarizes facts and opinion which the trial judge, by his finding of negligence in failing to take vigorous and continuous action, necessarily believed. There was no evidence really to the contrary. There were excuses offered, such as the greater danger in night work and Floe's thought that he couldn't accomplish much that night. But the judge obviously rejected those excuses.

So here again we challenge the propriety of the find-

ing that "it has not been established by a preponderance of the evidence that had [the Forest Service] negligence not existed, the fire would have been contained in the 60-acre area, or that there is any causal relationship between that negligence and the ultimate existence of fire in the 1600-acre area."

August 6-7 Negligence Was the Cause in Fact of Fire in 1600-Acre Area

How far must a plaintiff go? It is clear that the rangers in charge violated fundamental rules of forest fire fighting; that they failed to avail themselves of equipment, resources and carefully prepared plans which they were supposed to use and employ. Granted that since the fire was not put out no one can say to a certainty that the fire could have been suppressed at a specific moment or at a specific place. Yet the trial judge implies, at least, that such is the requirement. Necessarily under the circumstances of this case, we must look to the judgment and opinion of men of special knowledge and experience, and to the teachings and standards established by the accepted text writers. There is nothing improbable or contrary to common experience in the opinions they expressed. The trial judge adopted their views—up to the point that he agreed the Forest Service was negligent. But how, or upon what evidence or upon what personal or common experience, could the judge fairly conclude that the negligence had no causal relationship to the spread of the fire?

We respectfully suggest that judgment and opinion as to whether or not a fire could be controlled and sup-

pressed in a forest area, as to the number of men required to control and suppress it at various stages, and as to the effect of fighting fire at night and with full strength at daybreak, can best be given by men experienced in fighting fires: that the weight to be accorded the judgment and opinion of such men should be considerable, even to the point of conclusiveness, and that one who does not have such experience is not qualified to reach a contrary conclusion, especially when there is no disagreement on the subject between both parties' witnesses and there is no reason for the trier of the fact to disregard the testimony.

The view taken by the trial judge, if correct, would place an impossible burden upon injured parties and would prevent and frustrate substantial justice. He would in effect require plaintiffs in a civil suit to prove their cases beyond a reasonable doubt. That is not the law. The Washington Supreme Court, in considering whether or not a plaintiff had proved that a fire started through the negligence of another, stated the rule as follows:

> "The rule is well established that the existence of a fact or facts cannot rest on guess, speculation, or conjecture. It is also the rule that the one having the affirmative of an issue does not have to make proof to an absolute certainty. It is sufficient if his evidence affords room for men of reasonable minds to conclude that there is a greater probability that the thing in question, such as the occurrence of a fire, happened in such a way as to fix liability upon the person charged therewith than it is that it happened in a way for which a person charged would

not be liable. *In applying the circumstantial evidence submitted to prove a fact, the trier of fact must recognize the distinction between that which is mere conjecture and what is a reasonable inference.''* (Italics supplied)

Home Insurance Company v. Northern Pacific Railway 18 Wn.2d 798, at page 802, 140 P.2d 507, at page 509 (1943). See also *Nelson v. West Coast Dairy Company,* 5 Wn.2d 284, 105 P.2d 76 (1940). *Garretson v. Tacoma R & Power Co.,* 50 Wash. 24, 96 Pac. 511 (1908).

An ''inference'' is defined in *Page v. Spokane City Lines, Inc.,* 51 Wn.2d 308, 317 P.2d 1076 (1957), as ''a conclusion drawn by reason from premises established by proof,'' and in *Peterson v. Betts,* 24 Wn.2d 376, 165 P.2d 95 (1946), as ''a logical deduction or conclusion from an established fact. The mental process is: Since this is so, it must follow that it is also true, etc. * * * '' It is necessary and required that inferences shall be drawn and acted upon.

The only logical and reasonable deduction and conclusion from the evidence in this case is that had the Forest Service employees exercised due care, the fire would have been contained and suppressed at the spot fire stage on August 6 and, failing that, in the 60-acre area on August 6 and 7. Since the fire was not so contained and suppressed, but could have been, it is a logical and reasonable deduction and conclusion that its spread to the 1600-acre area was in fact caused and contributed to by such negligence.

What other deduction or conclusion could logically or reasonably be reached? We repeat that nowhere did

the trial judge find that the fire would have escaped in spite of the Forest Service's negligence. If there is anything speculative about this situation, it is the existence of any logical or reasonable explanation for the fire's escape other than the negligence of the Forest Service.

The negligence of the Forest Service employees on August 6 and 7 created a risk which spread to and continued in the 1600-acre area. There can be no argument about that. Creation of a risk is an essential ingredient of negligence. The risk created was one which endangered appellant's property, and the damage which appellant eventually suffered resulted from that risk and was foreseeable by the Forest Service employees. Floe testified that at 1:00 p.m., August 6, when the Heckelville fire was reported to him, he then knew that if that fire were unattended, it could spread easterly, southerly and westerly to the Pacific Ocean (Tr. III, pp. 738-740). The trial judge so found. Finding IX, R. 232.

It is the province, and even the duty, of this court, on the basis of the undisputed credible evidence in the record, to make findings and direct judgment in favor of the party whose case is supported by such evidence. *Meyer v. Strom,* 37 Wn.2d 818, 226 P.2d 218 (1951); *Shultes v. Halpin,* 33 Wn.2d 294, 205 P.2d 1201 (1949); *U.S. v. 449 Cases Containing Tomato Paste,* 212 F.2d 567 (2nd Cir. 1954); *Chesapeake & Ohio Railway Company v. Martin,* 283 U.S. 209 (1930). We particularly commend a full reading of the opinion in *Ferdinand v. Agricultural Insurance Company,* 22 N.J. 482, 126 A. 2d 323 (1956). In the course of its lengthy and learned

discussion of the subject, the New Jersey Supreme Court said, at page 329:

> " * * * when the proof of a particular fact is so meager or so fraught with doubt that a reasonably independent mind could come to no conclusion but that the fact did not exist there is no question for the jury to decide. Likewise, when the proof on a question of fact is so strong as to admit of no reasonable doubt as to its existence, again, there is no question for the jury to decide. In both these cases the court must make the determination and advise the jury accordingly * * *."

We submit that from the evidence in the case at bar, reasonable minds could not differ about the fact that the fire, both in its spot fire stage and at all times prior to its spread to the 1600 acres, could have and would have been controlled and suppressed but for the negligence of the Forest Service employees.

PART II.

Argument on Proximate and Intervening Cause

The foregoing argument clearly establishes that the Forest Service's August 6-7th negligence caused the fire to be in the 1600-acre area. The district judge said that it is self-evident that "but for" the fire's presence in the 1600-acre area on September 19-20, Rayonier would not have suffered damage (R. 258-60). Therefore, the Forest Service's August 6-7th negligence was the cause in fact of Rayonier's damage.

Now it will be demonstrated that this negligence was not only the cause in fact but also the proximate cause of Rayonier's damage because: the harm that Rayonier

suffered was within the scope of the general type of harm created and increased by said negligence; the continuing risk of that harm did not expire prior to September 19-20; and because the Forest Service's subsequent mop-up operation, even if prudent, did not insulate the government from liability.

The district judge was in apparent accord with this view because he stated that if the proof of cause in fact had not been speculative, he would have been required next to decide the issue of whether an "act of God" occurred on the night of September 19-20 (R. 283). The district judge would not have been required next to decide the "act of God" issue unless he had been satisfied that the government's negligence was a proximate cause of Rayonier's damage.

Therefore, the following argument will meet that issue and will demonstrate as a matter of law that the fortuitous weather of September 19-20 cannot exonerate the government from its August 6-7th negligence and that, accordingly, the government should be held liable for Rayonier's damages.

In the latter connection, appellant does not concede that the government has proved that the September 19-20th weather was unforeseeable in degree, the district judge having made no finding on this issue. However, being certain that the law is clearly in its favor, appellant will assume arguendo and for the sake of brevity that it could be found that such weather conditions were unforeseeable.

Foreseeability Is the Test of Proximate Cause

The test of proximate cause in Washington is "foreseeability." *Berglund v. Spokane County,* 4 Wn.2d 309, 103 P.2d 355 (1940); *McLeod v. Grant County School District,* 42 Wn.2d 316, 255 P.2d 360 (1953). This test identifies the general type of harm that may be foreseen—the general danger area that a reasonable person with ordinary experience would anticipate under all the circumstances—rather than the particular manner in which the risk culminates. *Lewis v. Scott,* 154 Wash. Dec. 509, 341 P.2d 488 (1959).

Applying the test, the district judge correctly defined in Amended Finding IX (R. 232) the general type of harm foreseeable as a consequence of the government's negligence. The harm suffered by Rayonier was clearly within the risk, so defined. See also, Memorandum Decision R. 193, 196-97 and 238. Chapter 76.04 RCW, especially RCW 76.04.450. *A. T. & S. F. R. R. v. Stanford,* 12 Kan. 354, 15 Am. Rep. 362; *Milwaukee, etc., Railway v. Kellogg,* 94 U.S. 469, 474; *Johnson v. Kosmos Portland Cement Company,* 64 F.2d 193 (6th Cir. 1933); *Irelan-Yuba Gold Quartz Mining Co. v. Pacific Gas & Electric Co.,* 18 Cal.App.2d 557, 116 P.2d 611 (1941); *Bloedel Donovan Lumber Mills v. United States,* 74 F.Supp. 470 (Ct. Cl. 1947), cert. den. 335 U.S. 814.

Therefore, it is clear that the government's August 6-7th negligence proximately caused Rayonier's damage and, as the district judge observed, a decision on the "act of God" is next required.

The government's contentions that the risk expired; that the damage was too remote; and that the government was exonerated by mop-up efforts are unmeritorious

However, at several hearings the government has contended that it was not liable to Rayonier because: The risk created by its August 6-7th negligence expired or was terminated; Rayonier's damage was too remote in time and space from the government's negligence; and because the government was exonerated from liability by its efforts to mop up the fire in the 1600 acres between August 10 and September 19. All of these contentions are unmeritorious.

The risk of fire in a forested area does not expire and cannot be terminated until the fire is extinguished. Chapter 76.04 RCW; *Willner v. Wallinder Sash & Door Co.,* 224 Minn. 361, 28 N.W.2d 682 (1947).

Remoteness of the harm from the time and place of the negligent act which caused or contributed to the continuing risk of harm has been refused as a limitation upon proximate cause and upon liability in Washington. The following quotation from Prosser on Torts, p. 349, § 48:

> "Remoteness in time and space undoubtedly is important in determining whether the defendant has been a substantial factor in causing the harm at all, and may well lead to the conclusion that he has not. But once such causation is found, it is not easy to discover any merit in the contention that such physical remoteness should of itself bar recovery. The defendant who sets a bomb which explodes 10 years later, or mails a box of poisoned chocolates from California to Delaware, has caused

> the result, and should obviously bear the consequences."

was approved in *Theurer v. Condon,* 34 Wn.2d 448, 209 P.2d 311 (1949). See also Prosser on Torts, 2d Ed., p. 264, and cases cited in fn. 78, p. 261, and fns. 96 and 97, p. 264; *Conrad v. Cascade Timber Co.,* 166 Wash. 369, 7 P.2d 19 (1932), quoting with approval from *Hardy v. Hines Bros. Lumber Co.,* 160 N.C. 113, 75 S.E. 855 (1912). Cases from other jurisdictions to the same effect are: *Chicago, R. I. & P. Railway Co. v. McBride,* 54 Kan. 172, 37 Pac. 978 (1894); *Phillips v. Durham & C. R. Co.,* 138 N.C. 12, 50 S.E. 462 (1905), citing a number of earlier authorities; *Kennedy v. Minarets & Western Railway Co.,* 90 Cal.App. 563, 266 Pac. 353 (1928); *Silver Falls Timber Co. v. Eastern & Western Lumber Co.,* 149 Ore. 126, 40 P.2d 703, 730-33 (1935); *Osborn v. City of Whittier,* 103 Cal.App.2d 609, 230 P.2d 132 (1951).

One who negligently creates a continuing risk cannot exonerate himself from liability by subsequent prudent efforts to overcome the hazard. In *Jess v. McNamer,* 42 Wn.2d 466, 255 P.2d 902 (1953), Judge Hamley said:

> " * * * The fact that, after appellant negligently created the risk, he exerted every effort to overcome the hazard, does not operate to cleanse the original act of its negligent character. This is made clear in 2 Restatement of Torts, 1181, § 437, where it is said:
>
> " 'If the actor's negligent conduct is substantial factor in bringing about harm to another, the fact that after the risk has been created by his negli-

> gence the actor has exercised reasonable care to prevent it from taking effect in harm does not prevent him from being liable for the harm.' " 42 Wn. 2d 466, 470. See also, Comment (a) of § 437.

Therefore, the government's mop-up operations after August 10, even if prudent, do not exonerate the government from liability for the foreseeable consequences of its August 6 and 7th negligence. *Kell v. Jansen,* 53 Cal.App.2d 498, 127 P.2d 1033 (1942); *Willner v. Wallinder Sash & Door Co.,* 224 Minn. 361, 28 N.W.2d 682 (1947).

Concurring Acts of God

Having disposed of all possible contentions to the contrary, appellant has now established that the government's August 6-7th negligence proximately caused Rayonier's damage and the government is liable to Rayonier unless the intervention of unusual weather conditions on September 19-20 immunizes the government from liability.

In his memorandum decision the district judge, after finding no negligence between August 10 and September 20, said:

> " * * * If Forest Service personnel were guilty of negligence proximately contributing to the breakout of the fire on the morning of September 20, the defendant United States would be liable for all damage resulting therefrom even though an Act of God concurred and combined with defendant's negligence in effecting the breakout and in producing the damage. On the other hand, if Forest Service personnel were not guilty of negligence proximately contributing to the breakout of the

> fire, then the adverse weather conditions, whether an Act of God or not, were the sole proximate cause of the escape of the fire and the damage resulting therefrom." (R. 201-02, 239).

At R. 203 the district judge said:

> "From the facts thus summarized and the principles of law earlier stated herein, these ultimate findings and conclusions follow: The Heckleville fire was not negligently started by any defendant; negligence chargeable to the United States proximately contributed to spread of the fire to the 1600-acre area, without resulting damage to plaintiffs; communication of fire from such area to plaintiffs' property was not proximately due to negligence of any defendant; such occurrence happened fortuitously and despite the exercise of reasonable care by defendants. Accordingly, liability for plaintiffs' damage in whole or in part has not been established as to any defendant."

It is respectfully submitted that the foregoing statements from the memorandum decision constitute erroneous application of the rule to the facts at bar.

The district judge's statements constitute erroneous application of the law because; (1) they would require that the *act* of negligence and the "*act* of God" occur simultaneously; and (2) they fail to recognize that negligence is a concurring proximate cause if, previously, it has created or contributed to a continuing risk which results in harm.

It is not a question of concurrence—in the sense of near simultaneous occurrence—of the negligent acts and the alleged act of God. It is concurrence in the

sense that the defendant's antecedent negligence has contributed to the continuing presence and existence of a risk or condition that may eventuate in harm if an act of God should intervene. *Brewer v. U.S.,* 108 F.Supp. 889 (M.D. Ga. 1952). According to the rule correctly stated, such a condition, subsequently acted upon by an act of God, makes the defendant liable if the general type of harm suffered by the plaintiff is within the scope of the risk, the creation or increase of which made the defendant's conduct negligent. *Johnson v. Kosmos Portland Cement Company,* 64 F.2d 193 (6th Cir. 1933).

The government's August 6-7th negligence and the continuing fire hazardous condition which it caused cannot be omitted from the application of the rule. The application of the rule is erroneous if, as in the district judge's memorandum opinion, it is restricted solely to an examination of the government's negligent acts and omissions, if any, occurring after August 10, which may have contributed to the fire's breakout.

Text Authorities

***Restatement of the Law of Torts*, § *451*. Extraordinary force of nature intervening to bring about harm different from that threatened by actor's negligence.**

"An intervening operation of a force of nature without which the other's harm would not have resulted from the actor's negligent conduct prevents the actor from being liable for the harm, if

"(a) the operation of the force of nature is extraordinary, and

"(b) the harm resulting from it is of a kind

different from that, the likelihood of which made the actor's conduct negligent.

"*Comment:*

"a. In order that an extraordinary operation of a natural force may relieve from responsibility an actor whose negligence *has created a situation upon which the natural force has operated,* the harm brought about by the intervention of the force of nature must be of a completely different sort from that which the actor's negligent conduct threatened and which would not have resulted had the operation of the force of nature not been extraordinary. * * * " (Emphasis added.)

The two criteria that must be met before an act of God may relieve the defendant of liability are conjunctive tests. Thus, the only circumstances under which the September 19-20 weather would relieve the government from responsibility for the continuing risk of fire is if the harm brought about by the weather was of a completely different nature than that which was foreseeable on August 6-7, to wit, damage from forest fire. Obviously, the harm which occurred is exactly that which would result from wind and weather acting upon fire.

Prosser on Torts, Revised Edition.

In this work, the author discusses intervening cause at length in Section 49, pages 266, *et seq.* Although the entire text is pertinent and cites a number of comparable cases, the following sections are particularly helpful:

"*Foreseeable Results of Unforeseeable Causes*

"Suppose that the defendant is negligent be-

cause his conduct threatens a result of a particular kind which will injure the plaintiff, and an intervening cause which could not be anticipated changes the situation, but ultimately produces the same result? The problem is well illustrated by a well-known federal case. The defendant failed to clean the residue out of an oil barge, tied to a dock, leaving it full of explosive gas. This was of course negligence, since fire or explosion, resulting in harm to any person in the vicinity, was to be anticipated from any one of several possible sources. A bolt of lightning struck the barge, exploded the gas, and injured workmen on the premises. The defendant was held liable. If it be assumed that the lightning was an unforeseeable intervening cause, still the result itself was to be anticipated, and the risk of it imposed upon the defendant the original duty to use proper care.

"In such a case, the result is within the scope of the defendant's negligence. His obligation to the plaintiff was to protect him against the risk of such an accident. It is only a slight extension of his responsibility to hold him liable when the danger he has created is realized through external factors which could not be anticipated. An instinctive feeling of justice leads to the conclusion that the defendant is morally responsible in such a case, and that the loss should fall upon him rather than upon the innocent plaintiff.

"Many cases have held the defendant liable where the result which was to be foreseen was brought about by causes that were unforeseeable: * * *." P. 278

Cases From Other Jurisdictions

Several cases from other jurisdictions support these rules.[9] The "well-known federal case" involving the oil barge, mentioned by Prosser, *supra,* is *Johnson v. Kosmos Portland Cement Company,* 64 F.2d 193 (6th Cir. 1933). In addition, we would particularly like to call the court's attention to the following cases involving fires:

Dippold v. Cathlamet Timber Company, 111 Ore. 199, 225 Pac. 202 (1924), involved a Washington forest fire which started in April, 1918, and, according to defendant, was all but extinguished by spring rains. A high wind in July spread the fire to plaintiff's property, causing the damage complained of. The Oregon court had no difficulty in finding that the April negligence contributed to the continuing risk of fire which eventuated in harm in July. At page 206, the Oregon court stated:

> "An act of God is an occurrence happening without the intervention or concurrence of any human agency. If it had appeared that lightning had struck and fired the timber, in consequence of

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[9] *Moore v. Townsend,* 76 Minn. 64, 78 N.W. 880 (1899); *Munsey v. Webb,* 231 U.S. 150, 34 S.Ct. 44, 58 L.Ed. 162 (1913); *Atkinson v. Chesapeake & Ohio Ry. Co.,* 47 W.Va. 633, 82 S.E., 502 (1914); *Mummaw v. Southwestern Telephone & Telegraph Company,* 208 S.W. 476 Mo. App. 1918); *American Coal Company v. DeWese,* 30 F.2d 349 (4th Cir. 1929); *Diamond Cattle Company v. Clark,* 52 Wyo. 265, 74 P.2d 857 (1937); *Bushnell v. Telluride Power Company,* 145 F.2d 950, 952 (10th Cir. 1944); *Gibson v. Garcia,* 96 Cal. App.2d 681, 216 P.2d 119 (1950), quoted and approved in *Danielson v. Pacific T. & T. Company,* 41 Wn.2d 268, 248 P.2d 568 (1952); *Riddle v. B. & O. R. Co.,* 137 W.Va. 733, 73 S.E.2d 793 (1952); *State v. Sims,* 97 S.E.2d 295 (W. Va. 1957); *Brewer v. United States,* 108 F.Supp. 889 (M.D. Ga. 1952); *Cachick v. United States,* 161 F. Supp. 15 (S.D. Ill. 1958).

which alone the logs had been consumed, that would have been an act of God. But here the evidence is that the fire was set out by the defendant for the purpose of burning its slashings, and one theory it advances is that this fire smoldered and ran underground for some time, after which it was fanned by the winds and caused the destruction of the plaintiffs' property. Whatever may be said of the effect of high winds, yet it is plainly not an act of God if it seizes upon a fire already started by human agency and causes the injury stated. *Rosenwald v. Oregon City Transp. Co.,* 84 Ore. 15, 163 Pac. 831, 164 Pac. 189."

The difficulty of contending that an extraordinary wind isolates the defendant's negligence from the injury is underscored in *Anderson v. Minneapolis, St. P. & S. S. M. Ry. Co.,* 146 Minn. 430, 179 N.W. 45, 48 (1920). There, the fire started in August, 1918. On October 12 a 76 m.p.h. wind blew it out of a bog where it had long smoldered, and caused it to spread to plaintiff's property, a considerable distance away. The court, affirming a refusal to instruct on an act of God, said:

"We are of the opinion that the rule [act of God rule] does not apply to the facts in this case. There was a drought in Northern Minnesota throughout the summer and fall of 1918. It was protracted and severe. There was a high wind on October 12th. Towards evening and for a short time it reached a velocity of 76 miles an hour. The fire or fires which destroyed plaintiff's property had been burning a long time. Defendant was bound to know that, the greater the drought, the greater danger of the spread of a fire. Strong winds are not uncommon in Minnesota * * *.

" * * * Neither the drought nor the wind would or could have desroyed plaintiff's property without the fire. * * * "

Precisely the same observation could and should be made in the case at bar. In the absence of fire in the 1600-acre area (which defendant's August 6-7th negligence caused) the September 19-20th weather would not have caused plaintiff's damage.

During the argument on appellant's motion to amend the findings and conclusions, the district judge concurred with this observation and said that it was so self-evident that it would not require a formal finding.

"THE COURT: If you want me to make the finding, 'If there were no fire in the 1600-acre area on that date, fire could not have escaped from it,' in those words just like that, I will make such a finding, but I feel kind of silly in doing it.

"MR. FERGUSON: Your Honor isn't reading the last portion, 'and plaintiffs would not have suffered the damage,' which is the key.

"THE COURT: There again it is so self-evident. It is silly to state it. Nobody is suggesting that plaintiffs' damage came from any other source except the fire which escaped on this morning from the 1600-acre area. Now, if the Court is going to make findings of that kind, why, there is no end to what the findings could contain.

"MR. FERGUSON: We haven't asked for a lot of findings, but we think it is important.

"THE COURT: I am sure you do, and I am certainly prepared to make any finding that reasonably is necessary to be made. But to say that if

there is no fire existing fire can't escape, if there is no prisoner in the cell, he can't get out to harm the fellow down the corridor, it is just, in my opinion, plain foolishness to make a finding of that kind.

"Mr. Marion: Your Honor, I am rather hesitant to suggest this as an alternative; 'That the wind, low humidity, and high temperature which occurred during the night of September 19 and 20, did not cause damage, and of themselves as independent forces did not damage the plaintiffs' property.'

"The Court: Well, that would be the same thing, of course. That would be the same statement of a simple self-evident fact that would be ridiculous to contain in a formal finding, and if that is all that is intended to be stated here, I don't see any point in stating it at all. It is perfectly apparent to everyone—or must be perfectly apparent to everyone, if there wasn't any fire you couldn't have burned anything." (R. 259-60)

Washington Law Re Act of God

This is the law in Washington and has been so recognized by this court in *Inland Power & Light Company v. Grieger,* 91 F.2d 811 (9th Cir. 1937). The case arose in the United States District Court for the Western District of Washington, Southern Division. It involved the flooding of plaintiff's lands on the Lewis River as a consequence of the concurrence of a condition contributed to by defendant's negligence acted upon by an extraordinary flood. On appeal, this court held that where the damage is the result of two concurring causes, one an act of God and the other a condition contributed

to by the defendant's antecedent negligence, the overwhelming weight of authority makes the defendant liable to the same extent as though all the damages had been caused by his negligence alone. The court relied on a number of its own cases, other federal cases, and upon *Howe v. West Seattle Land & Improvement Company,* 21 Wash. 594, 59 Pac. 495 (1899); *Goe v. Northern Pacific Railway Company,* 30 Wash. 654, 71 Pac. 182 (1903); and *Rice v. Puget Sound Traction, Light & Power Company,* 80 Wash. 47, 141 Pac. 191 (1914).

The rules may be brought into even closer focus by the following brief summaries of Washington cases.

In *Tope v. King County,* 189 Wash. 463, 65 P.2d 1283 (1937), the Washington Supreme Court reversed a trial court decision for defendant. The Supreme Court determined that defendant's negligence combined with an act of God (an unprecedented flood) to cause damage to plaintiff's land. Facing squarely the issue of liability of a negligent party under such circumstances, the court said, at pages 471-72:

> " * * * When two causes combine to produce an injury, both of which are, in their nature, proximate and contributory to the injury, one being a culpable negligent act of the defendant, and the other being an act of God for which neither party is responsible, then the defendant is liable for such loss as is caused by his own act concurring with the act of God, provided the loss would not have been sustained by plaintiff but for such negligence of the defendant. The burden of proof, however, is upon the defendant to show that the loss is due solely to an act of God. [Citing cases.]"

This holding was discussed and approved in *Blessing v. Camas Prairie Railroad Company,* 3 Wn.2d 266, 100 P.2d 416 (1940). See also *Topping v. Great Northern Railroad Company,* 81 Wash. 166, 142 Pac. 425 (1914).

In the case of *Teter v. Olympia Lodge,* 195 Wash. 185, 80 P.2d 547 (1938), and again in the *Blessing* case, *supra,* the court quoting 45 Corpus Juris 736 said:

> " ' * * * the fact that an injury was actually caused by a natural phenomenon of such unusual nature that it might be termed an 'act of God' will not excuse from liability where precautions which should have been taken to guard against occurrences which should have been expected were negligently omitted and such precautions would have prevented the injury.' * * * "

Observe the similarity between *Teter* and *Blessing* and the case at bar. Defendant's negligence in *Teter* was in failing for 40 days to do anything about the general risk of harm to persons within the scope of a 70-foot fire-damaged brick wall. This condition, acted upon by the wind, contributed to the damage. In *Blessing,* the railroad, long prior to the accident, created a condition of general harm by failing to construct a ditch through the cut where a derailment occurred. This condition, acted upon by a flood, contributed to the harm and made the defendant liable.

In *Galbraith v. Wheeler-Osgood Company,* 123 Wash. 229, 212 Pac. 174 (1923), the defendant contended that the escape of fire in a forested area was the direct result of a high wind which arose after the starting of

the fire. The Washington Supreme Court approved the verdict for plaintiff, saying:

> " * * * there was abundant evidence from which the jury could well find that the persons in charge of the fire did not exercise ordinary care and prudence in their management and care of the fire, and that this was the cause of the loss rather than the high wind. The question was therefore one for the jury, and as the question was fully and fairly submitted to them, we find no cause for interfering with their verdict."

In *Berglund v. Spokane County,* 4 Wn.2d 309, 103 P.2d 355 (1940), and again in *McLeod v. Grant County School District,* 42 Wn.2d 316, 255 P.2d 360 (1953), the court quotes and applies the following rule of law:

> " 'The courts are perfectly accurate in declaring that there can be no liability where the harm is unforeseeable, if 'forseeability' refers to the general type of harm sustained. It is literally true that there is no liability for damage that falls entirely outside the general threat of harm which made the conduct of the actor negligent. The sequence of events, of course, need not be forseeable. The manner in which the risk culminates in harm may be unusual, improbable and highly unexpectable, from the point of view of the actor at the time of his conduct. And yet, if the harm suffered falls within the general danger area, there may be liability, provided other requisites of legal causation are present.' Harper, Law of Torts, 14, § 7."

In the latter case the court, in addition, states:

> " * * * Whether foreseeability is being considered from the standpoint of negligence or proxi-

> mate cause, the pertinent inquiry is not whether the actual harm was of a particular kind which was expectable. Rather, the question is whether the actual harm fell within a general field of danger which should have been anticipated. * * * "

See also *Lewis v. Scott,* 154 Wash. Dec. 509, 341 P.2d 488 (1959).

The rule has particular applicability to the case at bar. As to each of the negligent acts and omissions of the government and of Mr. Floe and his subordinates, the general field of danger was that the Heckelville spot fire, if not contained and limited, suppressed and extinguished in the smallest possible area by the use of due care, might unite with some force or forces of nature arising at a later time to touch off a conflagration that would extend for miles. To insist that the precise nature and sequence of the concurring forces of nature be predictable is to take far too narrow a view of the matter.

The rule can be stated in another manner. The negligence of Mr. Floe and his subordinates stems from a duty imposed by law not to create an unreasonable risk that the plaintiffs and other persons may suffer property damage from a forest fire. In answering questions of proximate cause and intervening cause, it is sufficient if the defendant's negligence is in fact a cause of the harm and if the harm which occurs, as opposed to the sequence of events which concur to result in that harm, is foreseeable. Surely the government cannot be heard to say that the fire which occurred and the damages which it caused was not the very harm which was

risked by the negligence of Mr. Floe and his subordinates and, indeed, the prospect which made those acts and omissions negligent, as the district judge found. Can it now be argued that the government should be absolved from liability simply because the iterim sequence of events was unpredictable? Such a contention is wholly unwarranted.

For the foregoing reason it is clear that the fortuitous weather of September 19-20 does not exonerate the government from liability for its August 6-7th negligence.

CONCLUSION

This suit is important to the timber industry. It is equally important to the Government because the United States is in the timber industry. It owns, sells and raises more timber than anyone else and purposefully supplies raw materials to the manufacturers of forest products, both large and small. Private timber and public timber are intermingled, and what is good or bad for the private owner is equally good or bad for the Government.

Timber owners are going to see that their property is protected from fire and that an effective and conscientious organization is maintained in charge of that function. They expect, and are entitled to expect, that whoever takes charge in a given area will perform the job to standards commensurate with the responsibility assumed. By its own choice the United States Forest Service undertook the responsibility for fighting fire in the area here in question. If it had not done so,

then the State or some private company, or association of private companies, would have done so, just as they do in other areas. The Government must abide by the same rules that apply to its citizens.

It is sometimes difficult to erase from one's mind those barriers to liability of the sovereign which were erected through centuries of decrees and policy declarations. But it is now the law — and a good law — that the government and its employees are to be accountable for their negligence.

To give effect to this new law, the courts must take care to protect the rights of injured parties, and to see that no greater burden is placed upon citizens to obtain redress for the wrong doings of the Government than they would have in obtaining redress for wrongs committed by private persons. We earnestly believe that those aspects of this case are of far-reaching significance and deserving of this court's most careful consideration.

We asked this Court to reverse the judgment of the District Court and to direct the entry of judgment for appellant.

Respectfully submitted,

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APPENDIX A

WITNESS INDEX TO TYPEWRITTEN TRANSCRIPT OF TESTIMONY

APPENDIX B

LIST OF EXHIBITS

Exhibit No.	Description
1	June 14, 1910, quitclaim deed in chain of title to Section 30.
2	December 10, 1935, deed in chain of title to Section 30 filed for record in Clallam County on the following occasions to-wit: (a) December 23, 1935, under Auditor's Receiving No. 164459; (b) October 17, 1939, under Auditor's Receiving No. 186230; and (c) January 12, 1940, under Auditor's Receiving No. 187541.
3	December 28, 1918, warranty deed in the chain of title to the PAW right of way through Section 30.
4	1919, deed in the chain of title to the PAW right of way through Section 30.
5	November 30, 1946, deed in the chain of title to the PAW right of way through Section 30.
7	Contract SPC-557, dated March 31, 1937, between the government, as vendor, and Sol Duc Investment Company and PAW as vendees.
8	November 30, 1946, indenture whereby the United States Spruce Production Corporation assigned to the United States of America all of its interests as vendor under SPC-557, as amended (Exs. 7 and 9).

Exhibit No.	Description
9	Five supplemental contracts amending Contract SPC-557 (Ex. 7), dated respectively October 13, 1938, December 13, 1943, August 15, 1947, May 17, 1951, and August 21, 1952.
10	The Forest Service Railroad Stipulations dated July 18, 1938.
11	The Park Service Railroad Stipulations dated August 2, 1939.
12	The Forest Service Manual.
13	The Forest Service's Fire Control Handbook.
14	The 1951 Fire Suppression Plan.
15	Report on conditions of the PAW right of way (Form 399), dated November 23, 1936.
16	Letter dated November 2, 1937, from Mr. Floe to Supervisor, Olympic National Forest, re: condition of PAW right of way.
17	Report on condition of the PAW right of way (Form 399) dated November 22, 1937.
18	Report on condition of the PAW right of way (Form 399), dated November 15, 1938.
19	Letter dated July 30, 1946, from Mr. Floe to Supervisor, Olympic National Forest, re: the condition of PAW right of way.
20	Mr. Floe's November 20, 1945, letter to Mr. LeGear re: the condition of PAW right of way.
21	Mr. LeGear's January 24, 1946, letter to Mr. Floe re: the condition of PAW right of way.
22	The July 19, 1950, letter of Preston P. Macy,

Exhibit No.	Description
	Superintendent, Olympic National Park, to Harry LeGear of the Port Angeles Western Railroad Company.
23	January 17, 1951, memorandum from Preston P. Macy, Superintendent, Olympic National Park, to Regional Director, Region Four, National Park Service.
24	Cooperative Agreement between State of Washington and Forest Service in effect in 1951.
25	Not offered. See Ex. 80.
26	Port Angeles Western Fire Trespass Report submitted March 31, 1952.
27	Forest Service Forest Closure Notice covering the Soleduck River Area for the period July 2 through September 15, 1951, and related documents.
28	A summary of the State Forest Closures in the summer of 1951.
29	"Annual Fire Weather Report for Washington, Fire Weather District No. 3, Season 1951," published by the U. S. Department of Commerce, Weather Bureau Office at the Seattle-Tacoma Airport, Seattle 88, Washington.
30	U. S. Weather Bureau Climatological Data for the State of Washington, Volume LV, No. 4, for April, 1951.
31	U. S. Weather Bureau Climatological Data for the State of Washington, Volume LV, No. 5, for May, 1951.

Exhibit No.	Description
32	U. S. Weather Bureau Climatological Data for the State of Washington, Volume LV, No. 6, for June, 1951.
33	U. S. Weather Bureau Climatological Data for the State of Washington, Volume LV, No. 7, for July, 1951.
34	U. S. Weather Bureau Climatological Data for the State of Washington, Volume LV, No. 8, for August, 1951.
35	U. S. Weather Bureau Climatological Data for the State of Washington, Volume LV, No. 9, for September, 1951.
36	U. S. Weather Bureau Climatological Data for the State of Washington, Volume LV, No. 3, for the entire year.
37	U. S. Weather Bureau Form 1009-E, entitled "10-Day Fire Weather Record" for Snider Ranger Station.
38	U. S. Weather Bureau Form 1009-E, entitled "10-Day Fire Weather Record" for North Point Lookout Station.
39	U. S. Weather Bureau Form 1009-E, entitled "10-Day Fire Weather Record" for Beaver.
40	Hygrothermographs for Fibreboard Camp One for the period July 9, 1951, through September 23, 1951.
41	Hygrothermographs for Rayonier's Sappho Camp, for the period July 9, 1951, through September 23, 1951.

Exhibit No.	Description
42	Hygrothermographs for Rayonier's Hyas Ridge Weather Station, for the period July 9, 1951, through September 23, 1951.
43	Hygrothermographs for State Forest Warden's Headquarters at Beaver, Washington, for the period July 9, 1951, through September 23, 1951.
44	All fire weather forecasts broadcast by the United States Department of Commerce, Weather Bureau, Airport Station, at the Seattle-Tacoma Airport, for the period August 4, 1951, through September 20, 1951.
45	Rough telephone and radio log kept by District Ranger Floe and his wife at Snider Ranger Station on August 6, 1951.
46	The manuscript notes of L. J. Evans made subsequent to the events referred to which outline Mr. Evans' activities on August 6, 1951.
47	"Outline for Forks Fire Board of Review," pp. 1-5, inclusive, wherein Forest Service personnel set forth in chronological order the events of August 6-7, 1951.
48	"Individual Fire Report," on Forest Service Form 929, dated February 1, 1952, reporting this fire.
49	Rough organization chart for fire-fighting on August 7, 1951, prepared by District Ranger Floe and his subordinates. This appears in smooth form as a part of the "Outline for Board of Review" (Ex. 47).

Exhibit No.	Description
Ray. 50	Damages.
Ray. 51	Damages.
Ray. 52	Damages.
Ray. 53	Damages.
Ray. 54	Damages, Not Offered.
Ray. 55	Damages, Not Offered.
Ray. 56	Not Offered.
Ray. 57	Not Offered.
Ray. 58	Not Offered.
Ray. 59	Not Offered.
60	Woodcock diary for August and September, 1951, Forest Service Form 92-R.6.
61	Two Metzger maps pasted together as one map, covering parts of the fire area and environs.
62	Tracing of part of the 1600-acre area, showing 500-foot contours and identifying the 60-acre area and certain clearance data, etc.
63	Not Offered.
64	Diary of S. M. Floe for August, 1951, Forest Service Form 92-R.6.
65	"Individual Fire Report," Form FS-929, dated February 1, 1952, together with all forwarding correspondence and other writings relating thereto (Ex. 48).
66	29 yellow sheets, carbon copies, showing Fire Organization, August 7, 1951, to September 27, 1951.

Exhibit No.	Description
67	"Forest and Ranger District Dispatching Notes," Forest Service Form 89-R.6, consisting of 9 sheets, listing men and equipment in the Soleduck District. This is a part of Ex. 14.
68	Diary of L. J. Evans for August, 1951, Form 92-R.6.
69	Diary of L. J. Evans for September, 1951, Form 92-R.6.
70	Not offered.
71.	Not offered.
72	Daily Log and Diary—Dispatchers, Lookouts and other Semi-fixed Guards—Forest Service Form 934 of Edward Drake, covering the period June 18, 1951, through October 3, 1951.
73	Daily Log and Diary—Dispatchers, Lookouts and other Semi-fixed Guards—Forest Service Form 934 for W. S. Gamble, covering the period July 17, 1951, through September 20, 1951.
74	August 13, 1951, Government office memorandum addressed to District Ranger, Soleduck, from Field Supervisor, Olympic.
75	Daily Log and Diary—Dispatchers, Lookouts and other Semi-fixed Guards—Forest Service Form 934 of Edward Strum, covering the period June 23, 1951, through September 20, 1951.
76	Diary of Edward Drake, Forest Service Form 289, for August, 1951.

Exhibit No.	Description
77	Weather records of Snider Ranger Station, consisting of: (a) U. S. Department of Commerce, Weather Bureau, Form 1009-E, "10-Day Fire Weather Record" for Snider Ranger Station, covering the period August 1 to September 15, 1951 (Incomplete). This is a part of Ex. 37. (b) U. S. Department of Commerce, Weather Bureau, Form 1009 — climatological observations for August and September, 1951 (Incomplete). (c) U. S. Department of Commerce, Weather Bureau, Form 1009-E, "10-Day Fire Weather Record" for North Point Lookout Station (Incomplete). This is a part of Ex. 38.
78	Not offered.
79	Not offered.
80	"Fireman's Map 1950," bearing additional legend "Soleduck Ranger District, Olympic National Forest, Washington, 1949."
81	Burning Index Class Record, years 1951-52, Forest Service Form 84-R.6 (Revised April 1, 1946).
82	Not received in evidence.
83	Diary of John H. Leyh for September, 1951, Forest Service Form 92-R.6.
84	Not received in evidence.

Exhibit No.	Description
85	U. S. Department of Commerce, Weather Bureau, Form 1009-E, "10-Day Fire-Weather Record" for Lake Crescent Ranger Station, covering each of the following 10-day periods, to-wit: 10-day periods expiring August 10, August 20, August 31, September 10, September 21 and September 31, all of which are incomplete.
86	46 pages, more or less, of longhand and typewritten transcripts of daily weather forecasts received by radios at Snider Ranger Station during the period August 13 through September 12, 1951.
87	Not offered.
88	Four Forest Service Field Purchase Orders, entitled "Vendor's Invoice," on Forms AD-128C, dated August 11, 1951, showing equipment rental from Fibreboard Products, Inc., and P. G. Pearson.
89	Time slips, Forest Service Form 2-R.1, showing time spent by Fibreboard employees on PAW fire in August, 1951.
90	Time slips, Forest Service Form 2-R.1, showing time spent by Rayonier employees on PAW fire in August, 1951.
Govt. 91	Damages, not offered.
Govt. 92	Damages, not offered.
Govt. 93	Damages, not offered.
Govt. 94	Damages, not offered.
Govt. 95	Damages, not offered.

Exhibit No.	Description
Govt. 96	Damages, not offered.
Govt. 97	Damages, not offered.
Govt. 98	Damages, not offered.
Govt. 99	Damages, not offered.
Govt. 100	Damages, not offered.
Govt. 101	Certified consent of the Port Angeles Western Railroad, dated August 17, 1939, together with August 22, 1938, certified letter of the Acting Secretary, Department of Agriculture, to the Secretary of the Interior.
Govt. 102	Certified map showing right of way of PAW.
Govt. 103	Not offered.
Govt. 104	"Fire Weather Forecast Terminology," published by the U. S. Department of Commerce, Weather Bureau, dated 1948.
Govt. 105	Not offered.
Govt. 106	Forest Service Forms 1-R.6 entitled "Lookout Report," made by North Point Lookout, W. S. Gamble, covering two fires, one reported at 12:30 August 6, 1951, and the other at 1 p.m. August 6, 1951.
Govt. 107	Fire Plan — 1951 (Calawah-Hyas-Sitkum Area).
Govt. 108	Composite United States Geological Survey Map of Western Clallam County and environs on which there is traced the general outline of the entire burn area.
Govt. 109	Not offered.

Exhibit No.	Description
Govt. 110	Not received in evidence.
111	Van Orsdel map entitled "Origin of Fire, August 6 and 7, 1951."
112	Van Orsdel map entitled "1600-Acre Fire Map."
112-A	Fibreboard overlay to Ex. 112.
113	Van Orsdel map entitled "Vicinity Map of Landing No. 1."
114	Van Orsdel map entitled "Vicinity Map of Landing No. 1."
115	Handwritten transcripts of fire weather forecasts received at Snider.
116	Fire weather observer's daily memoranda for Snider Ranger Station.
117	Rough drafted fire control organization.
118	Board of Review proceedings — February 11, 1952, letter from C. A. Gustafson, Chief of the Forest Service Fire Control Division, to E. P. Cliff, Assistant Chief, N.F.A.
119	Board of Review proceedings — February 13, 1952, summary of discussions at Board of Fire Review on PAW fire.
120	Board of Review proceedings — March 18, 1952, letter from J. Herbert Stone to Chief of the Forest Service.
121	Board of Review proceedings — March 21, 1952, office memorandum from J. Herbert Stone to Acting Chief of Forest Service.

Exhibit No.	Description
122	Board of Review proceedings—"Comments on PAW Fire (Olympic)."
123	Board of Review proceedings — Comments on action.
124	Board of Review proceedings—Memoranda.
125	Rejected. Same as Ex. 46.
126	Rejected. Same as Ex. 45.
Ray. 127	Aerial photo-mosaic of entire Forks Fire burn area.
Ray. 128	Aerial photo-mosaic of the 1600-acre area.
Ray. 129	Aerial photo-mosaic entitled "Calawah Fire Area."
Ray. 130	Aerial photo-mosaic of vicinity of fire's origin.
Ray. 131	Aerial photo-mosaic of vicinity of fire's origin.
Ray. 132	Aerial photo-mosaic of vicinity of fire's origin.
Ray. 132-A	Aerial photo-mosaic of vicinity of fire's origin.
Ray. 133	Not offered.
Ray. 134	General map of Forks Fire burn area and vicinity.
Ray. 135	Reproduction survey map, 1948 and 1950.
Ray. 136	Reproduction survey map, 1948 and 1950.
Ray. 137	Reproduction survey map, 1948 and 1950.
Ray. 138	Reproduction survey map, 1948 and 1950.

Exhibit No.	Description
Ray. 139	Not offered.
Ray. 140	Rayonier certificates of clearance.
Ray. 141	"Slash Clearance Data—Forks Burn Area."
Ray. 142	Damages, not offered.
Ray. 143-A Ray. 143-B Ray. 143-C	Series of photographs of L-1
Ray. 144	Damages, not offered.
Ray. 145	Damages, not offered.
146	Witness Wayne Welch's personal memoranda book.
147	Not received in evidence.
148	Government slash map of burn area.
149	Map of a portion of Section 29, T-30-N, R-10-WWM.
149-A	A series of four photographs taken within the area shown in Ex. 149.
150	Western Fire Fighters' Manual.
151	Not received in evidence.
152	Quitclaim deed from PAW to U. S. Spruce Products Corporation.
153	Cross-complaint of U.S.A. against PAW in Cause No. 2956.
154	Damages, not offered.
155	Not offered.
156	Rejected.

Exhibit No.	Description
157	Rejected.
158	"Organization Plan for August 9-10-11 and 12, 1951."
159	Not offered.
160	Not offered.
161	Not offered.
162	Photograph of flat area near origin of fire.
163	Field purchase orders and voucher covering government's rental of Rayonier equipment.
164	Beaufort's Wind Scale.
165	Statement of Mrs. MacFarlane, state employee at Tyee.
166	State Forest Warden's radio log.
167	"Station Meteorological Summary," for Tatoosh Island.
168	Fuel moisture percentage prediction charts.
168-A	Fuel moisture percentage prediction charts.
169	Pages from Forest Service Manual.
170	Not received in evidence.
170-A	Rejected.
171	Washington Forest Fire Association, 44th Annual Report, 1951.
172	Rejected.
173	Baw Faw Peak Lookout weather data sheet.
174	Baw Faw Peak Lookout 10-day fire weather record.

Exhibit No.	Description
175	Weather Bureau's 16th Annual Fire Weather Report for Washington for Season 1939.
176	Fire Control Handbook.
177	Government's hypothetical question.
178-A	Simpson Logging Company calendar.
178-B	Photograph showing Northern Pacific right of way on Shelton-Bremerton route.
178-C	Photograph showing Northern Pacific right of way on Shelton-Bremerton route.
179	Answers to interrogatories.
180	April 30, 1951, letter from Forest Supervisor, Olympic National Forest, to Rayonier and May 5th reply thereto, requesting Forest Service pressure to maintain additional fire protection in Calawah area from Olympic Highway to Hyas Road junction.
181	Damages.
182	Weather records for 1951 season kept by J. O. F. Anderson at Hyas Ridge Weather Station.

APPENDIX C

EXHIBITS INDEX TO TYPEWRITTEN TRANSCRIPT OF TESTIMONY

Exhibit No.	*Identified*	*Offered*	*Rejected*	*Received*
1	II-365 R. 4	II-365		II-365
2	II-365 R. 4	II-365		II-365
3	II-365 R. 5	II-365		II-365
4	II-365 R. 6	II-365		II-365
5	II-365 R. 6	II-365		II-365
6	II-365 R. 6	II-365		II-365
7	II-365 R. 7	II-365		II-365
8	II-365 R. 8	II-365		II-365
9	II-365 R. 9	II-365		II-365
10	I-137 I-139 III-967 R. 8	I-138 III-967		I-140 III-967
11	I-137 I-139 III-967 R. 8	I-139 III-967		I-140 III-967

Exhibit No.	*Identified*	*Offered*	*Rejected*	*Received*
12	II-385 R. 9	II-386		II-386
13	II-388 R. 9	II-389		II-390
14	II-423 R. 9	II-425		II-426
15	II-460 R. 10	II-461		II-461
16	II-461 R. 10	II-461		II-461
17	II-461 R. 10	II-462		II-462
18	II-462 R. 10 R. 11	II-462		II-462
19	I-41 R. 11	I-44		I-44
20	I-39 R. 11	I-40		I-40
21	I-41 R. 11	I-41		I-41
22	I-46 R. 11	I-48		I-49
23	I-48 R. 11	I-50		I-50
24	II-401 R. 12	II-401		II-401
25	R. 12	Not Offered See Ex. 80		
26	II-667 R. 13 R. 17	II-667		II-671

ibit No.	Identified	Offered	Rejected	Received
27	I-58 R. 13	I-58		I-59
28	III-967 R. 13	III-967		III-968
29	II-501 R. 14	II-501		II-502
30	II-509 R. 14	II-509		II-509
31	II-509 R. 14	II-509		II-509
32	II-509 R. 14	II-509		II-509
33	II-509 R. 14	II-509		II-509
34	II-509 R. 14	II-509		II-509
35	II-509 R. 14	II-509		II-509
36	II-509 R. 14	II-509		II-509
36-A	VII-2154	VII-2156		VII-2159
37	III-968 R. 15	III-968		III-968
38	III-968 R. 15	III-968		III-968
39	III-968 R. 15	III-968		III-968
40	I-60 R. 15	I-60		I-60
41	1-60 R. 15	I-60		I-60

Exhibit No.	*Identified*	*Offered*	*Rejected*	*Receiv*
42	I-60 R. 15	I-60		I-60
43	I-60 R. 15	I-60		I-60
44	I-61 R. 15	I-61		I-61
45	III-830 R. 17	III-831		III-83
46	III-996 R. 17	III-996		III-99
47	II-682 R. 17	II-682		II-68
48	II-674 R. 18	II-673		II-67
49	III-968 R. 18	III-968		III-96
Ray. 50	R. 21	XIV-4596		
Ray. 51	XIV-4572 R. 21	XIV-4596		XIV-4
Ray. 52	XIV-4570 R. 21	XIV-4596		XIV-4
Ray. 53	XIV-4570 R. 21	XIV-4596		XIV-4
Ray. 54	R. 21	Not Offered		
Ray. 55	R. 21	Not Offered		
Ray. 56	R. 22	Not Offered		
Ray. 57	R. 22	Not Offered		
Ray. 58	R. 23	Not Offered		
Ray. 59	R. 23	Not Offered		

hibit No.	*Identified*	*Offered*	*Rejected*	*Received*
60	III-969	III-968 III-969		III-970
61	III-1003	III-1003		III-1003
62	IV-1214	IV-1214		IV-1214
63		Not Offered		
64	III-970	III-970		III-970
65	II-672 III-971	II-673 III-970 III-971		III-973
66	II-612 IV-1093	II-613 IV-1094		II-613 IV-1094
67	III-973	III-973		III-973
68	III-996	III-996		III-996
69	III-996	III-996		III-996
70		Not Offered		
71		Not Offered		
72	V-1578	V-1578		V-1578
73	II-522	II-522		II-522
74	II-660 X-3261	II-660 X-3261		II-662 X-3262
75	III-973	III-973		III-974
76	V-1578	V-1578		V-1578
77	III-817	III-817		III-817
78		Not Offered		
79		Not Offered		
80	II-372	II-373		II-373
81	IV-1280	IV-1281		IV-1283
82	III-974	III-974		
83	III-974	III-974		III-974

Exhibit No.	*Identified*	*Offered*	*Rejected*	*Receive*
84	IV-1269	IV-1270		
85	VII-2269	VII-2269		VII-226
86	X-3262	X-3262		X-326
87		Not Offered		
88	III-975	III-975		III-97
89		III-975		
	X-3264	X-3264		X-326
90		X-3264		X-326
Govt. 91		Not Offered		
Govt. 92		Not Offered		
Govt. 93		Not Offered		
Govt. 94		Not Offered		
Govt. 95		Not Offered		
Govt. 96		Not Offered		
Govt. 97		Not Offered		
Govt. 98		Not Offered		
Govt. 99		Not Offered		
Govt. 100		Not Offered		
Govt. 101	II-369	II-368		II-37
Govt. 102	II-369	II-368		II-37
Govt. 103		Not Offered		
Govt. 104	VII-2225	VII-2225		VII-22
Govt. 105		Not Offered		
Govt. 106	II-525	II-525		II-52
Govt. 107	XIV-4617	XIV-4617		XIV-4
Govt. 108	III-952	III-952		III-9
Govt. 109		Not Offered		
Govt. 110	III-975	III-975		

xhibit No.	*Identified*	*Offered*	*Rejected*	*Received*
111	II-577	II-578		II-579
112	1-27	I-27		I-27
112-A	VII-2246	VII-2246		VII-2247
113	III-849	III-849		III-851
114	III-976	III-976		III-976
115	X-3263	X-3263		X-3264
116	III-815	III-815		III-815
117	III-977	III-977		III-977
118	II-685 II-688	II-690		II-690
119	II-689	II-690		II-690
120	II-686 II-689	II-690		II-690
121	II-686 II-689	II-690		II-690
122	II-686 II-689	II-690		II-690
123	II-685	II-690		II-690
124	II-686 II-689	II-690		II-690
125			X-3266	
126			X-3266	
ay. 127	III-799	III-800		III-800
ay. 128	III-798	III-799		III-799
ay. 129	III-965	III-966		III-966
ay. 130	II-449	II-449		II-449
ay. 131	III-1031	III-1032		III-1032
ay. 132	I-206	I-207		I-207

Exhibit No.	*Identified*	*Offered*	*Rejected*	*Received*
Ray. 132-A	II-451	II-475		II-475
Ray. 133		Not Offered		
Ray. 134	VI-1886	VI-1887 XIII-4305		VI-1887 XIII-4305
Ray. 135	XIII-4305 XIV-4596	XIII-4305 XIV-4596		XIII-4305 XIV-4596
Ray. 136	XIII-4305 XIV-4568	XIII-4305 XIV-4596		XIII-4305 XIV-4596
Ray. 137	XIII-4305 XIV-4596	XIII-4305 XIV-4596		XIII-4305 XIV-4596
Ray. 138	XIII-4305 XIV-4596	XIII-4305 XIV-4596		XIII-4305 XIV-4596
Ray. 139		Not Offered		
Ray. 140	III-788	III-788		III-788
Ray. 141	X-3267	X-3267		X-3267
Ray. 142		Not Offered		
Ray. 143-A -B -C	XIII-4316	XIII-4316		XIII-4316
Ray. 144		Not Offered		
Ray. 145		Not Offered		
146	I-175	I-178		I-178
147	II-428	II-428		
148	II-487	III-977		III-977
149	III-836 IV-1297	III-839 IV-1297		IV-1297
149-A	III-836 IV-1297	III-839 III-844 IV-1297		 IV-1297
150	III-778	III-778		III-778

Exhibit No.	*Identified*	*Offered*	*Rejected*	*Received*
151	III-783	III-784		
152	XIV-4617	XIV-4617		XIV-4617
153	III-789 III-790 XIV-4618	III-789 XIV-4617		III-879
154		Not Offered		
155		Not Offered		
156	X-3268	X-3268	X-3268	
157	X-3268	X-3268	X-3268	
158	IV-1082	IV-1082 IV-1083		 IV-1083
159		Not Offered		
160		Not Offered		
161		Not Offered		
162	V-1459	V-1460		V-1460
163	IV-1301	IV-1302		V-1303
164	V-1573	V-1573		V-1574
165	V-1678	V-1678		V-1679
166	V-1682	V-1683		V-1683
167	X-3269	X-3269		X-3269
168	VII-2178 X-3269	VII-2179 X-3269		VII-2180 X-3269
168-A	VII-2178 X-3269	VII-2179 X-3269		VII-2180 X-3269
169	X-3269	X-3274		X-3279
170	X-3270	X-3269		
170-A			X-3280	
171	VII-2251	VII-2257		VII-2257
172	X-3108	X-3108	X-3109	

Exhibit No.	*Identified*	*Offered*	*Rejected*	*Received*
173	X-3350	X-3350		X-3350
174	X-3350	X-3350		X-3350
175	X-3372	X-3372		X-3372
176	X-3388	X-3388		X-3389
177	XI-3562	XI-3562 XII-3742		XI-3563 XII-374
178-A	XII-3746- XII-3747	XII-3745 XII-3803-4		XII-380
178-B	XII-3746- XII-3747	XII-3745 XII-3806		XII-380
178-C	XII-3746- XII-3747	XII-3745 XII-3806		XII-380
179	XIV-4428	XIV-4428		XIV-442
180	XIV-4562	XIV-4563		XIV-456
181	XIV-4595	XIV 4595		XIV-459
182	XIV-4564	XIV-4564		XIV-456